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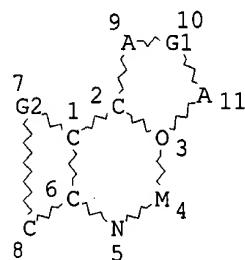
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FILE COVERS 1907 - 5 Mar 2003 VOL 138 ISS 10  
FILE LAST UPDATED: 4 Mar 2003 (20030304/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE

L5 SCR 1988 OR 1984 OR 1957  
L7 STR



REP G1=(0-4) A

REP G2=(1-4) C

NODE ATTRIBUTES:

NSPEC IS R AT 8

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

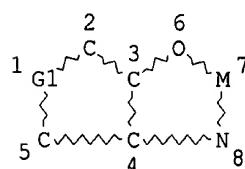
GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L8 STR



*- screens for group III + IV + lenthanded*

*53 structures from  
2 query structures*

REP G1=(0-4) C  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RSPEC I  
 NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE  
 L10 55 SEA FILE=REGISTRY SSS FUL (L7 OR L8) AND L5  
 L12 18 SEA FILE=HCAPLUS ABB=ON L10

*18 CA references*

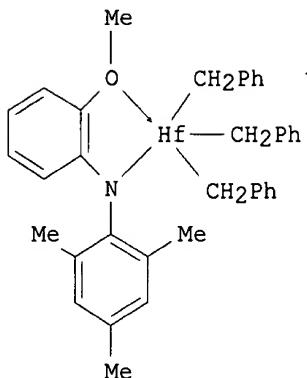
=> D L12 ALL 1-18 HITSTR

L12 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2001:747859 HCAPLUS  
 DN 135:289200  
 TI Ether-amine ligand/metal complex polymerization catalysts, compositions, and use for olefin polymerization  
 IN Goh, Christopher; Diamond, Gary M.; Murphy, Vince; Leclerc, Margarete K.; Hall, Keith; Lapointe, Anne M.; Boussie, Thomas R.; Lund, Cheryl; Uno, Tetsuo  
 PA Symyx Technologies, Inc., USA  
 SO PCT Int. Appl., 72 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C08F004-00  
 CC 35-3 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 29

*applicants*

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001074910	A2	20011011	WO 2001-US11015	20010404
WO 2001074910	A3	20020214		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002049288	A1	20020425	US 2001-825746	20010403
EP 1272537	A2	20030108	EP 2001-923150	20010404
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRAI US 2000-194650P	P	20000404		
WO 2001-US11015	W	20010404		
OS MARPAT 135:289200				
GI				



AB Catalysts comprise metal-ligand complexes or compns. of metal precursors and ligands (and optionally activators) that catalyze polymn. and copolymer. reactions, particularly with monomers that are olefins, diolefins or acetylenically unsatd. monomers. These compns. can also polymerize monomers that have polar functionalities. Thus, C2H4 and 1-octene were polymd. at 130.degree. for 1 h in the presence of AlEt<sub>3</sub>, dimethylanilinium tetrakis(pentafluorophenyl)borate activator, and complex I (2 .mu.mol Hf) to give 109 mg 71:29 copolymer.

ST hafnium arom ether amine ligand complex polymn catalyst; ethylene octene copolymer catalyst

IT Polymerization catalysts  
(ether-amine ligand/metal complex polymn. catalyst for olefin polymn.)

IT 118612-00-3, Dimethylanilinium tetrakis(pentafluorophenyl)borate  
RL: CAT (Catalyst use); USES (Uses)  
(activator; ether-amine ligand/metal complex polymn. catalyst for olefin polymn.)

IT 100-99-2, uses 1070-00-4, Tri-n-octylaluminum 1191-15-7,  
Diisobutylaluminum hydride 219863-12-4 **365424-70-0**  
365424-72-2 **365424-74-4** 365424-76-6 365424-78-8  
365424-81-3 **365424-82-4** **365424-84-6**  
**365424-86-8** 365424-88-0 365424-89-1 **365424-90-4**  
**365424-91-5** **365424-92-6**  
RL: CAT (Catalyst use); USES (Uses)  
(ether-amine ligand/metal complex polymn. catalyst for olefin polymn.)

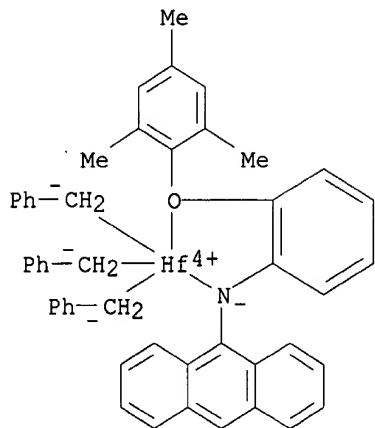
IT **365424-93-7P**  
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)  
(ether-amine ligand/metal complex polymn. catalyst for olefin polymn.)

IT 9003-07-0P, Polypropylene 26221-73-8P, Ethylene-1-octene copolymer  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(ether-amine ligand/metal complex polymn. catalyst for olefin polymn.)

IT **365424-70-0** **365424-74-4** **365424-82-4**  
**365424-84-6** **365424-86-8** **365424-90-4**  
**365424-91-5** **365424-92-6**  
RL: CAT (Catalyst use); USES (Uses)  
(ether-amine ligand/metal complex polymn. catalyst for olefin polymn.)

RN 365424-70-0 HCAPLUS

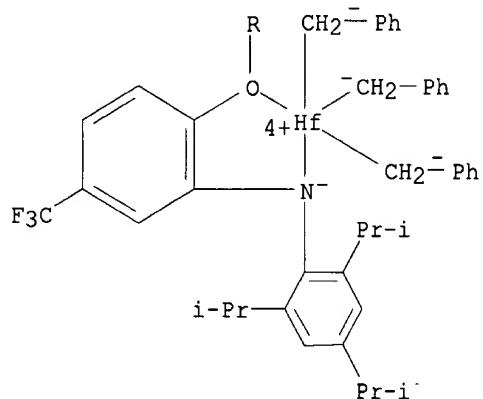
CN Hafnium, tris(phenylmethyl)[N-[2-(2,4,6-trimethylphenoxy-.kappa.O)phenyl]-9-anthracenaminato-.kappa.N]- (9CI) (CA INDEX NAME)



RN 365424-74-4 HCAPLUS

CN Hafnium, [N-[2-(4-methoxyphenoxy-.kappa.O)-5-(trifluoromethyl)phenyl]-2,4,6-tris(1-methylethyl)benzenaminato-.kappa.N]tris(phenylmethyl)- (9CI) (CA INDEX NAME)

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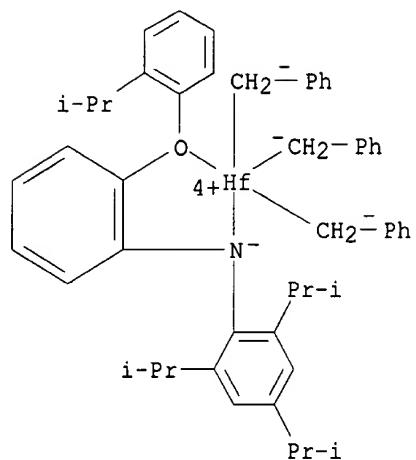


PAGE 2-A



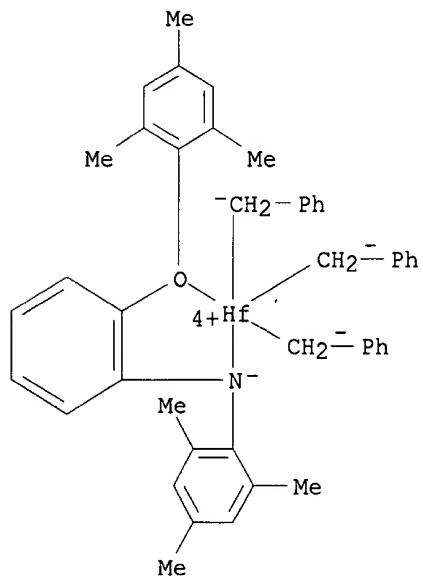
RN 365424-82-4 HCAPLUS

CN Hafnium, tris(phenylmethyl)[2,4,6-tris(1-methylethyl)-N-[2-[2-(1-methylethyl)phenoxy-.kappa.O]phenyl]benzenaminato-.kappa.N]- (9CI) (CA INDEX NAME)



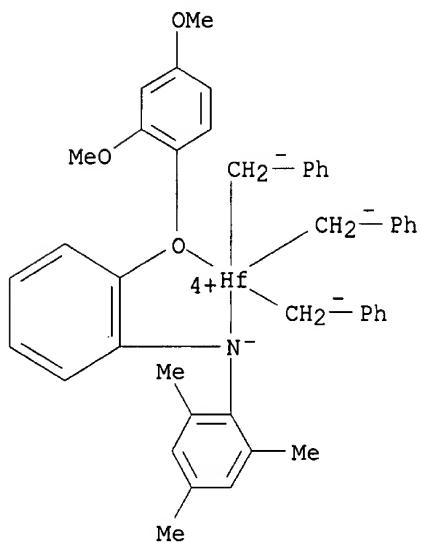
RN 365424-84-6 HCAPLUS

CN Hafnium, tris(phenylmethyl)[2,4,6-trimethyl-N-[2-(2,4,6-trimethylphenoxy-.kappa.O)phenyl]benzenaminato-.kappa.N]- (9CI) (CA INDEX NAME)



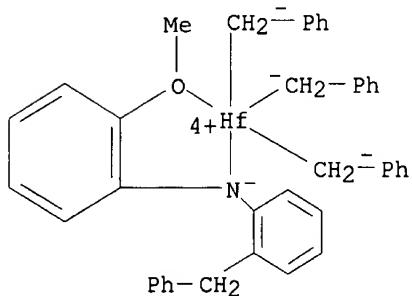
RN 365424-86-8 HCPLUS

CN Hafnium, [N-[2-(2,4-dimethoxyphenoxy-.kappa.O)phenyl]-2,4,6-trimethylbenzenaminato-.kappa.N]tris(phenylmethyl)- (9CI) (CA INDEX NAME)



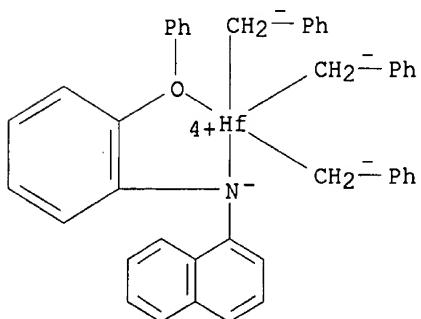
RN 365424-90-4 HCPLUS

CN Hafnium, [2-(methoxy- $\kappa$ O)-N-[2-(phenylmethyl)phenyl]benzenaminato- $\kappa$ N]tris(phenylmethyl)- (9CI) (CA INDEX NAME)

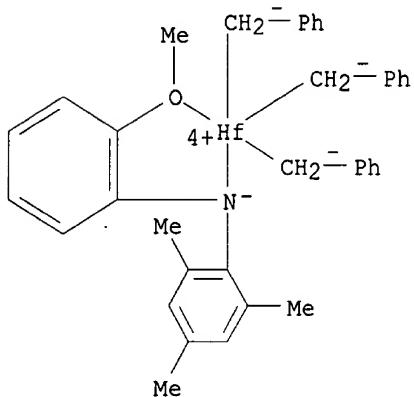


RN 365424-91-5 HCPLUS

CN Hafnium, [N-[2-(phenoxy- $\kappa$ O)phenyl]-1-naphthalenaminato- $\kappa$ N]tris(phenylmethyl)- (9CI) (CA INDEX NAME)

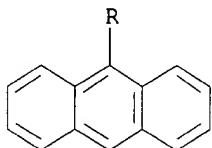


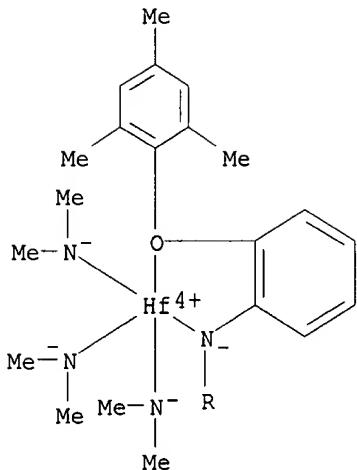
RN 365424-92-6 HCPLUS  
CN Hafnium, [N-[2-(methoxy-.kappa.O)phenyl]-2,4,6-trimethylbenzenaminato-.kappa.N]tris(phenylmethyl)- (9CI) (CA INDEX NAME)



IT 365424-93-7P  
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);  
USES (Uses)  
(ether-amine ligand/metal complex polymn. catalyst for olefin polymn.)  
RN 365424-93-7 HCPLUS  
CN Hafnium, tris(N-methylmethanaminato)[N-[2-(2,4,6-trimethylphenoxy-.kappa.O)phenyl]-9-anthracenaminato-.kappa.N]- (9CI) (CA INDEX NAME)

PAGE 1-A





L12 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2000:815680 HCAPLUS  
 DN 134:56762  
 TI A study of ortho- and para-siloxyanilines for the synthesis of mono-, bi-, and tetra-nuclear early transition metal-imido complexes  
 AU Benito, J. M.; Arevalo, Silvia; de Jesus, E.; de la Mata, F. J.; Flores, J. C.; Gomez, R.  
 CS Dep. Quim. Inorg., Univ. de Alcala, Madrid, ES-28871, Spain  
 SO Journal of Organometallic Chemistry (2000), 610(1-2), 42-48  
 CODEN: JORCAI; ISSN: 0022-328X  
 PB Elsevier Science S.A.  
 DT Journal  
 LA English  
 CC 29-10 (Organometallic and Organometalloidal Compounds)  
 OS CASREACT 134:56762  
 AB The siloxyanilines  $\text{o-Me}_3\text{SiOC}_6\text{H}_4\text{NH}_2$  (1) and  $\text{p-RMe}_2\text{SiOC}_6\text{H}_4\text{NH}_2$  ( $\text{R} = \text{H}$  (2);  $\text{R} = \text{Me}$  (3)), and their N-silylated derivs.  $\text{p-Me}_3\text{SiOC}_6\text{H}_4\text{NHSiMe}_3$  (4) and  $\text{p-Me}_3\text{SiOC}_6\text{H}_4\text{N}(\text{SiMe}_3)_2$  (5) have been prepd. from ortho- or para-aminophenol and used in the synthesis of imido complexes. Thus, binuclear  $[\{\text{Ti}(\text{.eta.5-C}_5\text{H}_5)\text{Cl}\}(\text{.mu.-NC}_6\text{H}_4(\text{p-OSiMe}_3))]_2$  (6) and mononuclear  $[\text{TiCl}_2\{\text{NC}_6\text{H}_4(\text{p-OSiMe}_3)\}(\text{py})_3]$  (7) imido complexes have been obtained from reaction of 3 and  $[\text{Ti}(\text{.eta.5-C}_5\text{H}_5)\text{Cl}_3]$  or  $[\text{TiCl}_2(\text{NtBu})(\text{py})_3]$ , resp. In contrast, reaction of 1 with  $\text{TiCl}_4$  and tbupy afforded titanocene  $[\text{TiCl}_2\{\text{OC}_6\text{H}_4(\text{o-NH})-\text{N},\text{O}\}(\text{tbupy})_2]$  (8). Compd. 5 was also used to prep. niobium imide complex  $[\text{NbCl}_3\{\text{NC}_6\text{H}_4(\text{p-OSiMe}_3)\}(\text{MeCN})_2]$  (9), by reaction with  $\text{NbCl}_5$  in  $\text{CH}_3\text{CN}$ . These findings have been applied to the synthesis of polynuclear systems. Thus, chlorocarbosilane  $\text{Si}[\text{CH}_2\text{CH}_2\text{CH}_2\text{Si}(\text{Me})_2\text{Cl}]_4$  (CS-Cl) has been functionalized with ortho- and para-aminophenoxy groups to give  $\text{Si}[\text{CH}_2\text{CH}_2\text{CH}_2\text{Si}(\text{Me}_2)\text{OC}_6\text{H}_4(\text{o-NH}_2)]_4$  10 and  $\text{Si}[\text{CH}_2\text{CH}_2\text{CH}_2\text{Si}(\text{Me}_2)\text{OC}_6\text{H}_4(\text{p-NH}_2)]_4$  11, resp. The use of 11 allowed formation of a tetranuclear compd.,  $\text{Si}(\text{CH}_2\text{CH}_2\text{CH}_2\text{Si}(\text{Me}_2)\text{OC}_6\text{H}_4[\text{p-NTiCl}_2(\text{py})_2])_4$ . Attempts to synthesize terminal imido titanium complexes from 10 and  $\text{TiCl}_4$  in the presence of tbupy and  $\text{Et}_3\text{N}$ , gave complex 8 and carbosilane CS-Cl.  
 ST siloxyaniline prepn reaction titanium niobium chloro complex; imido titanium niobium chloro mononuclear polynuclear complex prepn

IT Imines  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(niobium and titanium complexes; study of ortho- and  
para-siloxyanilines for synthesis of mono- and polynuclear)

IT Amines, preparation  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(siloxyanilines; study of ortho- and para-siloxyanilines for synthesis  
of mono- and polynuclear titanium and niobium imido complexes)

IT 13569-59-0, Niobium(III) chloride  
RL: RGT (Reagent); RACT (Reactant or reagent)  
(prepn. of)

IT 313706-04-6P 313706-05-7P **313706-06-8P** 313706-07-9P  
313706-10-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

IT 75-77-4, Chlorotrimethylsilane, reactions 95-55-6, 2-Hydroxyaniline  
123-30-8, 4-Hydroxyaniline 1066-35-9, Chlorodimethylsilane 1270-98-0,  
Trichloro(.eta.5-cyclopentadienyl)titanium 3978-81-2, tert-Butylpyridine  
161638-89-7, Tetrakis(3-(chlorodimethylsilyl)propyl)silane 172481-11-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(study of ortho- and para-siloxyanilines for synthesis of mono- and  
polynuclear titanium and niobium imido complexes)

IT 31935-76-9P, N,N-Bis(trimethylsilyl)-4-((trimethylsilyl)oxy)aniline  
36309-42-9P, 4-((Trimethylsilyl)oxy)aniline 36309-44-1P,  
2-((Trimethylsilyl)oxy)aniline 52726-86-0P, N-Trimethylsilyl-4-  
((trimethylsilyl)oxy)aniline 60613-13-0P 313706-08-0P 313706-09-1P  
313706-11-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(study of ortho- and para-siloxyanilines for synthesis of mono- and  
polynuclear titanium and niobium imido complexes)

IT 313706-03-5P, 4-((Dimethylsilyl)oxy)aniline **313706-12-6P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(study of ortho- and para-siloxyanilines for synthesis of mono- and  
polynuclear titanium and niobium imido complexes)

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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(5) Cardoso, A; J Chem Soc Dalton Trans 1980, P1156 HCPLUS  
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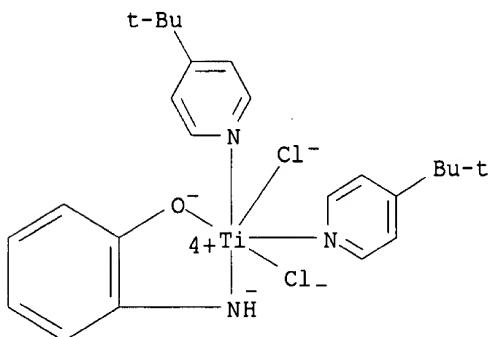
- (21) Seyferth, D; PCT Int Appl WO 97/32908 1997
- (22) Seyferth, D; PCT Int Appl WO 97/32918 1997
- (23) Stoddart, F; Polyhedron 1999, V18, P3575 HCAPLUS
- (24) Vroegop, C; J Chem Soc Chem Commun 1983, P550 HCAPLUS
- (25) Wigley, D; Prog Inorg Chem 1994, V42, P239 HCAPLUS
- (26) Williams, D; J Chem Soc Dalton Trans 1992, P739 HCAPLUS

IT **313706-06-8P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

RN 313706-06-8 HCAPLUS

CN Titanium, [2-(amino-.kappa.N)phenolato(2-)-.kappa.O]dichlorobis[4-(1,1-dimethylethyl)pyridine]-, (OC-6-42)- (9CI) (CA INDEX NAME)

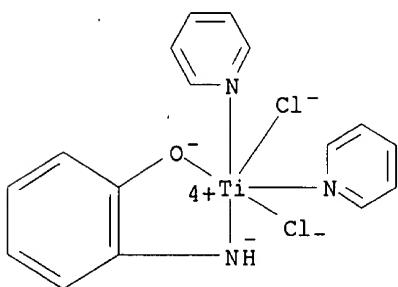


IT **313706-12-6P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
(study of ortho- and para-siloxyanilines for synthesis of mono- and polynuclear titanium and niobium imido complexes)

RN 313706-12-6 HCAPLUS

CN Titanium, [2-(amino-.kappa.N)phenolato(2-)-.kappa.O]dichlorobis(pyridine)- (9CI) (CA INDEX NAME)



L12 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:523617 HCAPLUS

DN 133:231939

TI Terbium (hydroxo)phenylanthranilates

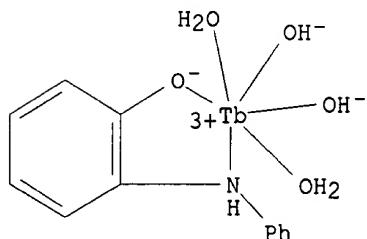
AU Kalinovskaya, I. V.; Karasev, V. E.; Neprokina, E. V.

CS Inst. Khim., DVO RAN, Vladivostok, Russia

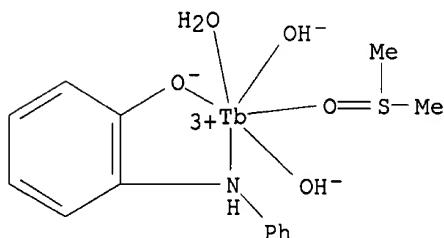
SO Zhurnal Neorganicheskoi Khimii (2000), 45(7), 1142-1145

CODEN: ZNOKAQ; ISSN: 0044-457X

PB MAIK Nauka/Interperiodica Publishing  
DT Journal  
LA Russian  
CC 78-7 (Inorganic Chemicals and Reactions)  
AB TbL(OH)2.Q (HL = phenylanthranilic acid; Q = H2O, DMSO, piperidine, Et2NPh) was prepd. by the reaction of TbCl3 with HL in presence of Q. TbL(OH)2.Q were characterized by IR spectra, thermal anal. and luminescence spectroscopy. The thermal stability of the complexes was detd. L coordinates through the carboxylate O and N atoms.  
ST terbium phenylanthranilate hydroxo complex prepn IR; luminescence terbium phenylanthranilate hydroxo complex  
IT IR spectra  
Luminescence  
(of terbium hydroxide phenylanthranilate complexes)  
IT 292135-89-8P 292135-90-1P 292135-91-2P  
292135-92-3P  
RL: PRP (Properties); SPM (Synthetic preparation); PREP (Preparation)  
(prepn. and IR spectra)  
IT 91-40-7 91-66-7, Diethylaniline 110-89-4, Piperidine, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reactant for prepn. of terbium hydroxide phenylanthranilate complexes)  
IT 292135-89-8P 292135-90-1P 292135-91-2P  
292135-92-3P  
RL: PRP (Properties); SPM (Synthetic preparation); PREP (Preparation)  
(prepn. and IR spectra)  
RN 292135-89-8 HCAPLUS  
CN Terbium, diaquadihydroxy[2-(phenylamino-.kappa.N)phenolato-.kappa.O]- (9CI) (CA INDEX NAME)

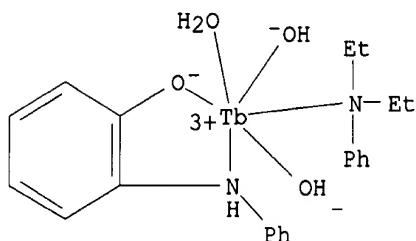


RN 292135-90-1 HCAPLUS  
CN Terbium, aquadihydroxy[2-(phenylamino-.kappa.N)phenolato-.kappa.O][(sulfinyl-.kappa.O)bis[methane]]- (9CI) (CA INDEX NAME)



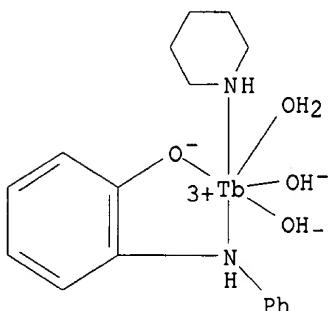
RN 292135-91-2 HCAPLUS

CN Terbium, aqua (N,N-diethylbenzenamine)dihydroxy[2-(phenylamino-.kappa.N)phenolato-.kappa.O]- (9CI) (CA INDEX NAME)



RN 292135-92-3 HCPLUS

CN Terbium, aquadihydroxy[2-(phenylamino-.kappa.N)phenolato-.kappa.O] (piperidine)- (9CI) (CA INDEX NAME)



L12 ANSWER 4 OF 18 HCPLUS COPYRIGHT 2003 ACS

AN 1999:468345 HCPLUS

DN 131:102661

TI Transition metal compounds useful as olefin polymerization catalysts and polymerization method therewith

IN Matsui, Shigekazu; Tsuru, Kazutaka; Nitahara, Masatoshi; Mitani, Makoto; Fujita, Terunori

PA Mitsui Chemicals Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07F007-28

ICS C07F007-00; C07F017-00; C08F004-642; C08F010-00

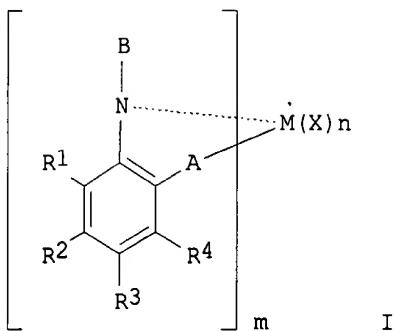
CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 67

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11199592	A2	19990727	JP 1998-200115	19980715
PRAI	JP 1997-193516		19970718		
	JP 1997-239632		19970904		
	JP 1997-308398		19971111		
OS	MARPAT 131:102661				

GI



AB Olefin polymn. catalysts comprise (A) transition metal compds. (I) and (B) org. metal compds., organoaluminum oxy compds. and/or compds. capable to form ion pairs by reaction with I, wherein M = group 3-11 transition metal; m = 1-6; A = O, S, Se, OR<sub>5</sub>, NR<sub>5</sub>, NR<sub>5</sub>R<sub>6</sub>, :CR<sub>7</sub>R<sub>8</sub>; B = R<sub>9</sub>, R<sub>10</sub>, :CR<sub>11</sub>R<sub>12</sub>; R<sub>1-12</sub> = H, halogen, hydrocarbyl, heterocyclic compd. residue, group contg. O, N, B, S, P, Si, Ge, or Sn; n = no. satisfying valence of M; X = H, halogen, hydrocarbyl, group contg. O, S, N, B, Al, P, halogen, Si, Ge, or Sn, or heterocyclic compd. residue. Thus, ethylene was polymd. in the presence of Me aluminoxane and I prep'd. from .alpha.-naphthylaldehyde, o-aminophenol, and titanium chloride to give a polyethylene with polymn. activity 12 g/mmol-Ti-h.

ST transition metal compd olefin polymn catalyst; ethylene polymn methyl aluminoxane cocatalyst; polyethylene prep'n coordination polymn catalyst; naphthylaldehyde aminophenol titanium chloride catalyst prep'n

IT Aluminoxanes

RL: CAT (Catalyst use); USES (Uses)  
(Me, cocatalysts; prep'n. of polyolefins using transition metal polym. catalysts)

IT Polymerization catalysts  
(coordination; prep'n. of transition metal olefin polym. catalysts)

IT Polyolefins

RL: IMF (Industrial manufacture); PREP (Preparation)  
(prep'n. of polyolefins using transition metal polym. catalysts)

IT Transition metal compounds

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)  
(prep'n. of transition metal olefin polym. catalysts)

IT 100-99-2, uses 136040-19-2, Triphenylcarbenium tetrakis(pentafluorophenyl)borate

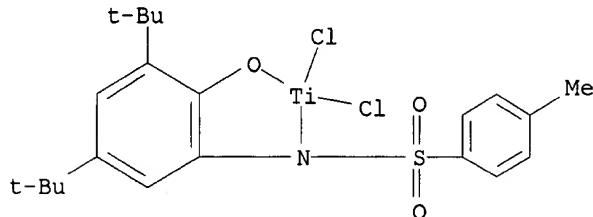
RL: CAT (Catalyst use); USES (Uses)  
(cocatalyst; prep'n. of polyolefins using transition metal polym. catalysts)

IT 1643-39-6P, 2-Amino-4,6-di-tert-butylphenol 20039-94-5P

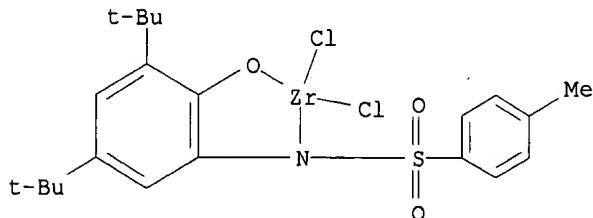
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(in ligand prep'n.; prep'n. of transition metal olefin polym. catalysts)

IT 66-77-3, .alpha.-Naphthylaldehyde 75-77-4, reactions 95-55-6, o-Aminophenol 96-76-4, 2,4-Di-tert-butylphenol 98-59-9, p-Toluenesulfonyl chloride 100-52-7, Benzaldehyde, reactions 578-66-5, 8-Aminoquinoline 5036-87-3, 2-Methyl-7-aminobenzothiazole 5779-94-2,

2,5-Dimethylbenzaldehyde  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (in ligand prepn.; prepn. of transition metal olefin polym. catalysts)  
 IT 3159-42-0P 5932-25-2P 231283-96-8P 231283-97-9P 231284-00-7P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (ligand; prepn. of transition metal olefin polym. catalysts)  
 IT 9002-88-4P, Polyethylene  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of polyolefins using transition metal polym. catalysts)  
 IT 231283-98-0P 231283-99-1P 231298-29-6P 231298-30-9P  
 231298-31-0P 231298-32-1P 231298-33-2P 231298-34-3P  
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);  
 USES (Uses)  
 (prepn. of transition metal olefin polym. catalysts)  
 IT 7550-45-0, Titanium tetrachloride, reactions 7632-51-1, Vanadium  
 tetrachloride 7646-79-9, Cobalt dichloride, reactions 10026-11-6,  
 Zirconium tetrachloride  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. of transition metal olefin polym. catalysts)  
 IT 231283-98-0P 231283-99-1P  
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);  
 USES (Uses)  
 (prepn. of transition metal olefin polym. catalysts)  
 RN 231283-98-0 HCAPLUS  
 CN Titanium, [N-[3,5-bis(1,1-dimethylethyl)-2-(hydroxy-.kappa.O)phenyl]-4-  
 methylbenzenesulfonamido(2-).kappa.N]dichloro-, (T-4)- (9CI) (CA INDEX  
 NAME)



RN 231283-99-1 HCAPLUS  
 CN Zirconium, [N-[3,5-bis(1,1-dimethylethyl)-2-(hydroxy-.kappa.O)phenyl]-4-  
 methylbenzenesulfonamido(2-).kappa.N]dichloro-, (T-4)- (9CI) (CA INDEX  
 NAME)



AN 1998:494902 HCAPLUS  
DN 129:210868  
TI Crystal structure of an imine-TiCl<sub>4</sub> complex formed in catalytic aziridination reactions. Scope and mechanistic considerations  
AU Rasmussen, Kaare G.; Hazell, Rita G.; Jorgensen, Karl Anker  
CS Center for Metal Catalyzed Reactions, Department of Chemistry, Aarhus University, Aarhus, DK-8000, Den.  
SO Acta Chemica Scandinavica (1998), 52(8), 1056-1059  
CODEN: ACHSE7; ISSN: 0904-213X  
PB Munksgaard International Publishers Ltd.  
DT Journal  
LA English  
CC 78-7 (Inorganic Chemicals and Reactions)  
Section cross-reference(s): 67, 75  
AB A dimeric imine-Ti(IV) complex formed in the TiCl<sub>4</sub>-catalyzed aziridination of imines was isolated and characterized by x-ray diffraction. The structure is discussed and a mechanistic rationale is presented based on the enantiomeric excess obtained in catalytic aziridination of imines using alkyl diazoacetates as the carbene fragment donor in the presence of chiral TiX<sub>2</sub>-TADDOLate complexes.  
ST crystal structure titanium benzylideneanisidine chloro complex; titanium benzylideneanisidine chloro complex prepn structure; aziridination catalytic reaction tin benzylideneanisidine intermediate; TADDOLate titanium complex aziridination catalyst  
IT Cycloaddition reaction  
(aziridination; titanium N-benzylidene-o-anisidine intermediate in catalytic aziridination reactions)  
IT Crystal structure  
Molecular structure  
(of titanium N-benzylidene-o-anisidine chloro complex)  
IT Cycloaddition reaction catalysts  
(titanium N-benzylidene-o-anisidine chloro TADDOLate complexes for aziridination of Et diazoacetate)  
IT 623-73-4, Ethyl diazoacetate  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(aziridination of catalyzed by titanium N-benzylidene-o-anisidine chloro TADDOLate complexes)  
IT 7440-32-6D, Titanium, TADDOLate complexes, uses 93379-48-7D, titanium complex 109306-21-0D, titanium complex 137365-09-4D, titanium complex 158953-00-5D, titanium complex  
RL: CAT (Catalyst use); USES (Uses)  
(catalyst for aziridination of Et diazoacetate)  
IT 5877-56-5, N-Benzylidene-o-anisidine  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(for prepn. of titanium N-benzylidene-o-anisidine chloro complex as intermediate in catalytic aziridination reactions)  
IT 212247-06-8P  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and crystal structure of intermediate in catalyzed aziridination reaction and reaction with Et diazoacetate)  
IT 212247-07-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. by titanium N-benzylidene-o-anisidine chloro TADDOLate complex catalyzed aziridination of Et diazoacetate)  
RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD  
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IT 212247-06-8P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and crystal structure of intermediate in catalyzed aziridination reaction and reaction with Et diazoacetate)

RN 212247-06-8 HCPLUS

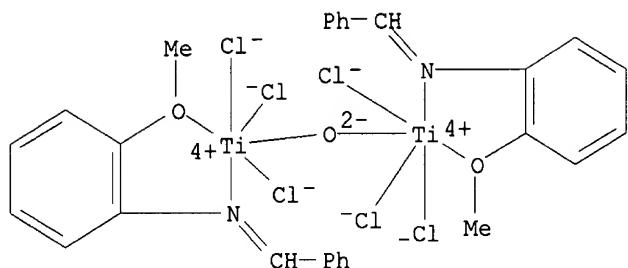
CN Titanium, hexachlorobis[[N(E)]-2-(methoxy-.kappa.O)-N-(phenylmethylene)benzenamine-.kappa.N]-.mu.-oxodi-, stereoisomer, compd. with trichloromethane (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 212247-05-7

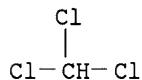
CMF C28 H26 Cl6 N2 O3 Ti2

CCI CCS



CM 2

CRN 67-66-3  
CMF C H Cl3



L12 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1998:483497 HCAPLUS  
 DN 129:210841  
 TI Reactions of  $\text{Ti}(\text{O-i-Pr})\text{Cl}_3$  with 2-aminophenol and the crystal structure of the zwitterionic complex  $[\text{Ti}(\text{O-i-Pr})\text{Cl}_3(\text{THF})(-\text{OC}_6\text{H}_4\text{NH}_3^+)]\cdot\text{cntdot}.\text{THF}$   
 AU Ho, Yuh-Chou; Hwang, Tyng-Yuh; Gau, Han-Mou  
 CS Department of Chemistry, National Chung-Hsing University, Taichung, 402, Taiwan  
 SO Inorganica Chimica Acta (1998), 278(2), 232-236  
 CODEN: ICHAA3; ISSN: 0020-1693  
 PB Elsevier Science S.A.  
 DT Journal  
 LA English  
 CC 78-7 (Inorganic Chemicals and Reactions)  
 Section cross-reference(s): 75  
 AB  $\text{Ti}(\text{O-i-Pr})\text{Cl}_3$  reacts with 1 molar equivalent of 2-aminophenol ( $\text{HO-C}_6\text{H}_4\text{NH}_2$ ) in  $\text{CH}_2\text{Cl}_2$  to afford the likely zwitterionic complex  $[\text{Ti}(\text{O-i-Pr})\text{Cl}_3(\text{OC}_6\text{H}_4\text{NH}_3^+)]_2$  (1). However, when the reaction is carried out in THF, another zwitterionic complex  $[\text{Ti}(\text{O-i-Pr})\text{Cl}_3(\text{THF})(\text{OC}_6\text{H}_4\text{NH}_3^+)]\cdot\text{cntdot}.\text{(THF)}$  (2) was obtained. With the addn. of  $\text{Ti}(\text{O-i-Pr})\text{Cl}_3$  to a mixt. of 2-aminophenol and  $\text{NEt}_3$  in  $\text{CH}_2\text{Cl}_2$ , the reaction gives the likely monomeric complex  $[\text{Ti}(\text{O-i-Pr})\text{Cl}_3(\text{OC}_6\text{H}_4\text{NH}_2)]^-(\text{HNEt}_3)^+$  (3). The role of the amino group and the effect of the addn. of  $\text{NEt}_3$  and the coordinating THF solvent are discussed. 2 Was characterized by x-ray crystallog. (monoclinic, space group  $P21/c$ ,  $R = 0.042$ ). The mol. structure of 2 reveals a species contg. the zwitterionic 2-ammonium phenoxide ligand. Two THF mols. are found in the solid state structure in which one THF coordinates to the titanium metal center and the 2nd THF is held tightly via the hydrogen bonding from one ammonium hydrogen. The mol. structure of 2 suggests that the relative bonding abilities of the ligands are in the order of  $-\text{O-i-Pr} > -\text{OAr} > -\text{Cl} > \text{THF}$ .  
 ST crystal structure titanium propanolato ammoniophenolato THF; structure

titanium propanolato ammoniophenolato THF chloro; titanium propanolato ammoniophenolato zwitterion prep structure; aminophenolato titanium propanolato chloro complex prep

IT Crystal structure  
Hydrogen bond  
Molecular structure  
(of titanium propanolato chloro THF ammoniophenolato zwitterionic complex)

IT 95-55-6, 2-Aminophenol 3981-83-7, Trichloro(isopropanolato)titanium  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(for prep. of titanium propanolato chloro aminophenolato and ammoniophenolato zwitterionic complexes)

IT 212068-25-2P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prep. and crystal structure)

IT 212068-23-0P **212068-27-4P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prep. of)

RE.CNT 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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IT **212068-27-4P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

RN 212068-27-4 HCPLUS

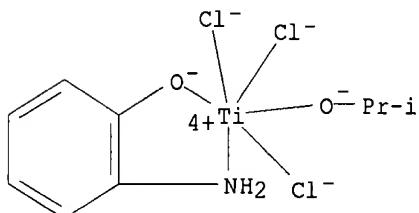
CN Titanate(1-), [2-(amino-.kappa.N)phenolato-.kappa.O]trichloro(2-propanolato)-, (OC-6-21)-, hydrogen, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 212068-26-3

CMF C9 H13 Cl3 N O2 Ti . H

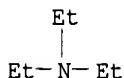
CCI CCS



CM 2

CRN 121-44-8

CMF C6 H15 N



L12 ANSWER 7 OF 18 HCPLUS COPYRIGHT 2003 ACS  
 AN 1995:546020 HCPLUS  
 DN 123:131154

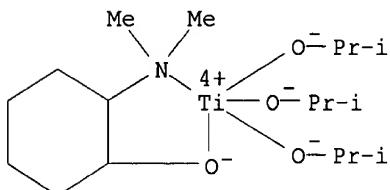
TI An NMR study of mixed, tartrate-containing TiIV complexes  
AU Potvin, Pierre G.; Fieldhouse, Benjamin G.  
CS Dep. Chem., York Univ., North York, ON, M3J 1P3, Can.  
SO Canadian Journal of Chemistry (1995), 73(3), 401-13  
CODEN: CJCHAG; ISSN: 0008-4042  
PB National Research Council of Canada  
DT Journal  
LA English  
CC 78-7 (Inorganic Chemicals and Reactions)  
AB The reactions of amines and amino alcs. with diisopropyl or di-Et R,R- or S,S-tartrate and Ti(OiPr)4 were examd. by 1H and 13C NMR to obtain and characterize nonfluxional complexes with the tartrate units in novel binding modes. The mildly acidic 8-hydroxyquinoline and N-phenyl-N-benzoylhydroxylamine selectively formed the products of a double OiPr substitution, Ti2(tartrate)2(ligand)2(OiPr)2, and the products of double tartrate substitution, Ti(ligand)2(OiPr)2, while 2,4-pentanedione formed only the latter. Basic amino alkanols formed diastereomerically pure Ti2(tartrate)2(aminoalkoxide)(OiPr)3 species. N,N-dimethyl-2-aminoethanol (Hdmae) also and uniquely formed monomeric Ti(tartrate)2(Hdmae)2 species that could be described as doubly zwitterionic. Secondary or tertiary amines formed triply C2-sym. Ti3(tartrate)4(amine)2(OiPr)4 assemblies. Some minor components were believed to be .mu.-OiPr species. All mixed complexes except Ti(tartrate)2(Hdmae)2 contained chelating and bridging tartrate units, without coordination by ester carbonyls. A nonchelating, nonbridging tartrate unit was also present in the amino alc. cases. Primary amines, arom. amines, and hydrazines all failed to provide identifiable complexes. As well, N,N-dibenzylhydroxylamine failed to generate in soln. the complex that had previously been characterized by x-ray crystallog. Amidst the rich chem. of TiIV-tartrate systems, the evident selectivities in product formation were ascribed to macro-ring closures that are specifically directed by the electronic nature of the addend. Transient OiPr-bridged intermediates were also implicated.  
ST titanium tartrate ester mixed ligand complex; amine titanium tartrate ester complex; amino alc titanium tartrate ester complex  
IT Amines, preparation  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(titanium tartrate ester complexes)  
IT Alcohols, preparation  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(amino, titanium tartrate ester complexes)  
IT 87-91-2, Diethyl R,R-tartrate 103-74-2, 2-(2-Hydroxyethyl)pyridine  
108-01-0 109-89-7, reactions 110-18-9, N,N,N',N'-Tetramethyl-1,2-diaminoethane 110-91-8, Morpholine, reactions 118-10-5, (+)-Cinchonine 123-54-6, Acetylacetone, reactions 148-24-3, 8-Hydroxyquinoline, reactions 299-42-3, (-)-(1R,2S)-Ephedrine 304-88-1, N-Benzoyl-N-phenylhydroxylamine 321-98-2, (+)-(1S,2R)-Ephedrine 621-07-8, N,N-Dibenzylhydroxylamine 2217-15-4, Diisopropyl R,R-tartrate 21651-78-5 53657-16-2, (.+-.)-N,N-Dimethyl-1-amino-2-propanol 62961-64-2, Diisopropyl S,S-tartrate 144182-65-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(for prepn. of titanium tartrate ester mixed-ligand complexes)  
IT 23072-32-4P 23329-69-3P 40881-31-0P 141879-37-0P 141902-60-5P  
141902-61-6P 141902-63-8P 141928-09-8P 144182-66-1P 144191-89-9P  
144191-90-2P 165824-60-2P 165824-61-3P 165824-62-4P 165824-63-5P  
165824-64-6P 165824-65-7P 165824-66-8P 165824-67-9P 165824-68-0P  
165824-69-1P 165824-70-4P 165824-71-5P 165824-72-6P  
166374-99-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

IT **165824-71-5P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

RN 165824-71-5 HCAPLUS

CN Titanium, [2-(dimethylamino)cyclohexanolato-N,O]tris(2-propanolato)- (9CI)  
(CA INDEX NAME)



L12 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2003 ACS  
AN 1995:531719 HCAPLUS  
DN 123:24552

TI Synthesis and characterization of some new lanthanide(III) chelates with 1,4-bis(2'-hydroxyphenylazomethine)phenylene

AU Moustafa, M. M.

CS Fac. Sci., Benha Univ., Benha Kalubia, Egypt

SO Monatshefte fuer Chemie (1995), 126(3), 255-61  
CODEN: MOCMB7; ISSN: 0026-9247

PB Springer  
DT Journal  
LA English  
CC 78-7 (Inorganic Chemicals and Reactions)  
Section cross-reference(s): 68

AB The chelates formed between 1,4-bis(2'-hydroxyphenylazomethine)phenylene, 1-(2-HOC<sub>6</sub>H<sub>4</sub>N:CH)C<sub>6</sub>H<sub>4</sub>(CH:NC<sub>6</sub>H<sub>4</sub>OH-2)-4, with La, Ce, Pr, Nd, Sm, Gd, Dy, Er, Yb, and Lu ions were studied in soln. using conductometric, potentiometric, and spectrophotometric methods. The studies revealed the formation of M<sub>2</sub>L and ML complexes. The solid chelates were characterized by elemental and thermal anal., molar conductance, IR, <sup>1</sup>H NMR (for La and Lu chelates), and electronic spectra. The bonding takes place through the coordination of N in the -CH=N- group and the O of the hydroxyl group by proton displacement.

ST aminophenol phenylenediacarboxaldehyde Schiff lanthanide complex; formation const lanthanide Schiff base complex; thermal decompr lanthanide Schiff base complex

IT Ionization in liquids  
(of bis(hydroxyphenylazomethine)phenylene)

IT Formation constant and Stability constant  
Kinetics of thermal decomposition  
Thermal decomposition  
(of rare earth bis(hydroxyphenylazomethine)phenylene complexes)

IT Rare earth compounds  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(Schiff base complexes, prepn., thermal decompr. and formation consts. of bis(hydroxyphenylazomethine)phenylene)

IT Schiff bases

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (rare earth metal complexes, prepn., thermal decompn. and formation  
 consts. of bis(hydroxyphenylazomethine)phenylene)

IT 7440-45-1D, Cerium, 1,4-bis(2'-hydroxyphenylazomethine)phenylene complexes  
 7440-52-0D, Erbium, 1,4-bis(2'-hydroxyphenylazomethine)phenylene complexes  
 7440-64-4D, Ytterbium, 1,4-bis(2'-hydroxyphenylazomethine)phenylene  
 complexes 13060-68-9D, cerium, erbium, and ytterbium complexes  
 RL: PRP (Properties)  
 (formation consts. of)

IT 13060-68-9  
 RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)  
 (ionization consts. and use for prepn. of rare earth complexes)

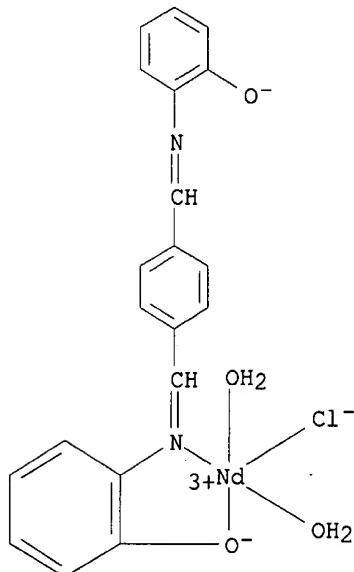
IT 163732-08-9P 163732-09-0P 163732-10-3P  
 163732-11-4P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and formation const. of)

IT 163731-98-4P 163731-99-5P 163732-00-1P  
 163732-01-2P 163732-02-3P 163732-03-4P  
 163732-04-5P 163732-05-6P 163732-06-7P  
 163732-07-8P  
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP  
 (Preparation); RACT (Reactant or reagent)  
 (prepn., formation const. and thermal decompn. of)

IT 163732-08-9P 163732-09-0P 163732-10-3P  
 163732-11-4P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and formation const. of)

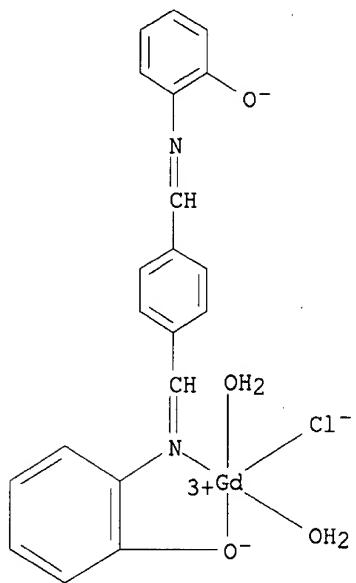
RN 163732-08-9 HCPLUS

CN Neodymium, diaquachloro[[2,2'-[1,4-phenylenebis(methylidynenitrilo)]bis[ph  
 enolato]](2-)N,O]- (9CI) (CA INDEX NAME)



RN 163732-09-0 HCPLUS  
 CN Gadolinium, diaquachloro[[2,2'-[1,4-phenylenebis(methylidynenitrilo)]bis[ph

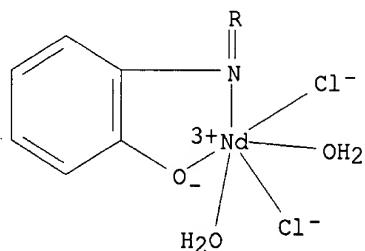
phenolato]](2-)-N,O]- (9CI) (CA INDEX NAME)



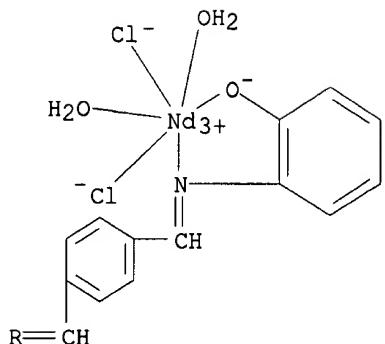
RN 163732-10-3 HCAPLUS

CN Neodymium, tetraaquatetrachloro[[μ-[[2,2'-[1,4-phenylene]bis(methylidynenitrilo)]bis[phenolato]](2-)-N,O:N',O']]di-, dihydrate (9CI) (CA INDEX NAME)

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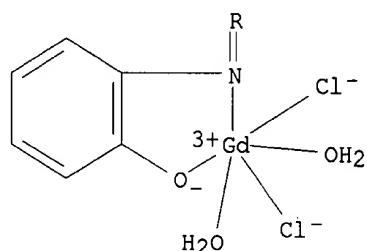


● 2  $\text{H}_2\text{O}$

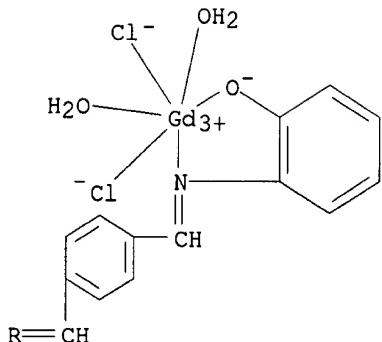
RN 163732-11-4 HCAPLUS

CN Gadolinium, tetraaquatetrachloro[.mu.-[[2,2'-[1,4-phenylenebis(methylenetrinitro)]bis[phenolato]](2-)-N,O:N',O']]di-, dihydrate (9CI) (CA INDEX NAME)

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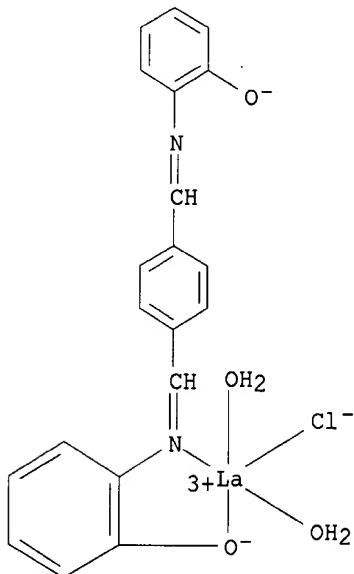
●2 H<sub>2</sub>O

IT 163731-98-4P 163731-99-5P 163732-00-1P  
 163732-01-2P 163732-02-3P 163732-03-4P  
 163732-04-5P 163732-05-6P 163732-06-7P  
 163732-07-8P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn., formation const. and thermal decompr. of)

RN 163731-98-4 HCPLUS

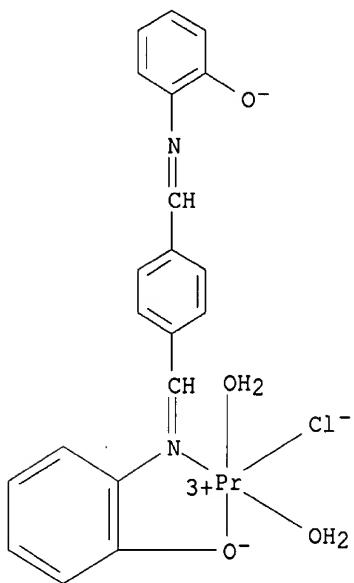
CN Lanthanum, diaquachloro[[2,2'-[1,4-phenylenebis(methylenenitrilo)]bis(phenoxy]](2-)N,O]- (9CI) (CA INDEX NAME)



RN 163731-99-5 HCPLUS

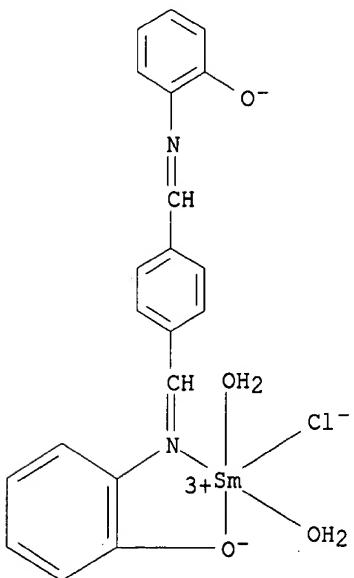
CN Praseodymium, diaquachloro[[2,2'-[1,4-phenylenebis(methylenenitrilo)]bis

[phenolato]] (2-) -N, O]- (9CI) (CA INDEX NAME)



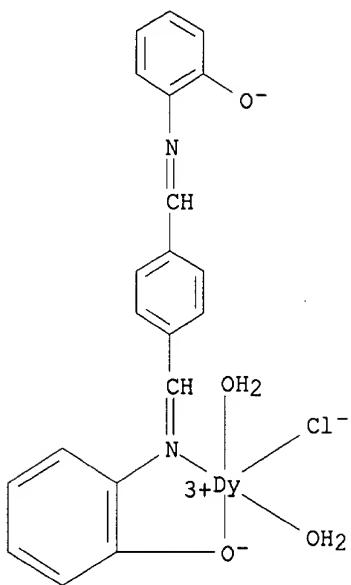
RN 163732-00-1 HCPLUS

CN Samarium, diaquachloro[[2,2'-[1,4-phenylenebis(methylidynenitrilo)]bis[phenolato]] (2-) -N, O]- (9CI) (CA INDEX NAME)



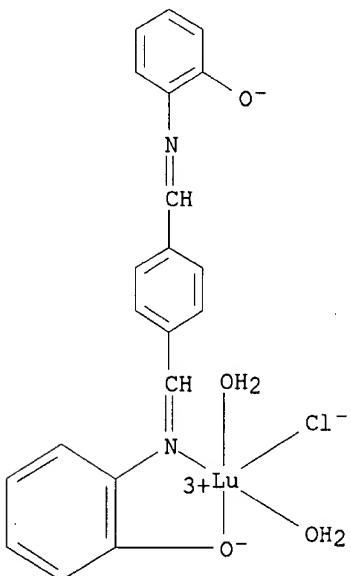
RN 163732-01-2 HCPLUS

CN Dysprosium, diaquachloro[[2,2'-[1,4-phenylenebis(methylidynenitrilo)]bis[phenolato]] (2-) -N, O]- (9CI) (CA INDEX NAME)



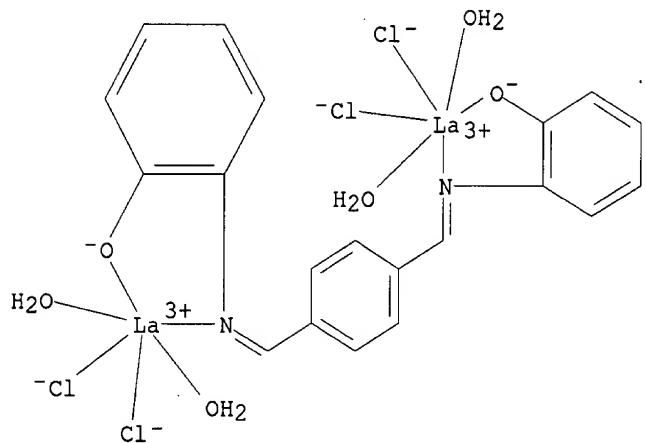
RN 163732-02-3 HCAPLUS

CN Lutetium, diaquachloro[[2,2'-[1,4-phenylenebis(methylidynenitrilo)]bis[phenolato]](2-)-N,O]- (9CI) (CA INDEX NAME)



RN 163732-03-4 HCAPLUS

CN Lanthanum, tetraaquatetrachloro[.mu.-[[2,2'-[1,4-phenylenebis(methylidynenitrilo)]bis[phenolato]](2-)-N,O',O']]di-, dihydrate (9CI) (CA INDEX NAME)

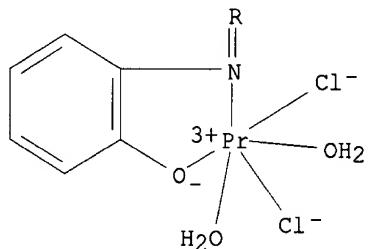


●2 H<sub>2</sub>O

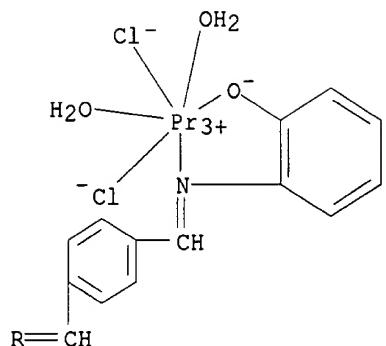
RN 163732-04-5 HCAPLUS

CN Praseodymium, tetraaquatetrachloro[[mu.-[[2,2'-[1,4-phenylene]bis(methylenetrifluoro)]bis[phenolato]](2-)-N,O:N',O']]di-, dihydrate (9CI) (CA INDEX NAME)

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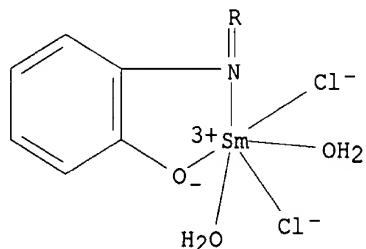


● 2  $\text{H}_2\text{O}$

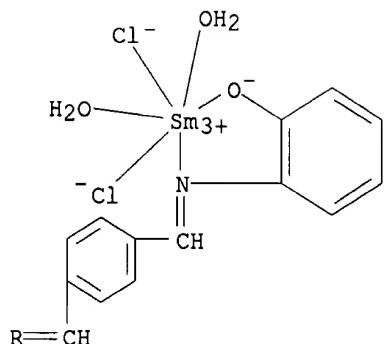
RN 163732-05-6 HCAPLUS

CN Samarium, tetraaquatetrachloro[.mu.-[[2,2'-[1,4-phenylenebis(methylenetrifluoro)]bis[phenolato]](2)-N,O:N',O']]di-, dihydrate (9CI) (CA INDEX NAME)

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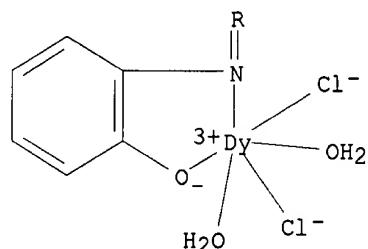


● 2  $\text{H}_2\text{O}$

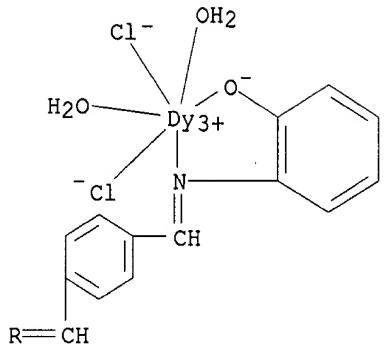
RN 163732-06-7 HCPLUS

CN Dysprosium, tetraaquatetrachloro[.mu.-[[2,2'-[1,4-phenylenebis(methylidynenitrilo)]bis[phenolato]](2-)-N,O:N',O']]di-, dihydrate (9CI) (CA INDEX NAME)

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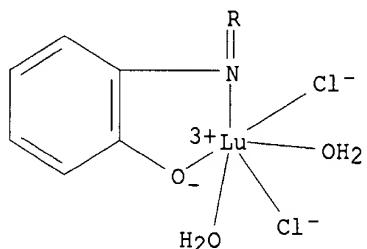


●2  $H_2O$

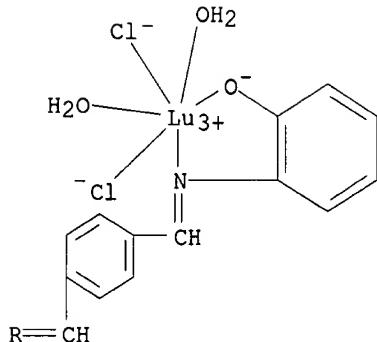
RN 163732-07-8 HCPLUS

CN Lutetium, tetraaquatetrachloro[.mu.-[[2,2'-[1,4-phenylenebis(methylidynetrilo)]bis[phenolato]](2)-N,O:N',O']]di-, dihydrate (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

● 2 H<sub>2</sub>O

L12 ANSWER 9 OF 18 HCPLUS COPYRIGHT 2003 ACS  
 AN 1991:113977 HCPLUS  
 DN 114:113977  
 TI New coordination polymers of 1,4-bis(2'-hydroxyphenylazomethine)phenylene  
 AU Hassan, M. K.; Abd-Alla, M. A.; Hasan, R. M.  
 CS Fac. Sci., Assiut Univ., Assiut, Egypt  
 SO Journal of Macromolecular Science, Chemistry (1990), A27(12), 1503-14  
 CODEN: JMCHBD; ISSN: 0022-233X  
 DT Journal  
 LA English  
 CC 78-7 (Inorganic Chemicals and Reactions)  
 Section cross-reference(s): 25, 76  
 AB [MC<sub>2</sub>L<sub>2</sub>H<sub>2</sub>O]<sub>n</sub> (M = Ti, Cr, Fe), [M<sub>2</sub>L<sub>2</sub>H<sub>2</sub>O]<sub>n</sub> (M<sub>2</sub> = Mn, Ni), and [CuL]<sub>n</sub> (H<sub>2</sub>L = 1,4-[2-HOC<sub>6</sub>H<sub>4</sub>N:CH]<sub>2</sub>C<sub>6</sub>H<sub>4</sub>) were prep'd. They were characterized by elemental anal., IR, and electronic spectra. The thermal behavior of these coordination polymers was studied by TGA in air. They are thermally stable at 200°C. Phys. properties such as the solv. and viscosity of the polymer complexes were detd. Elec. cond. measurements of the synthesized polychelated polymers showed that they are insulators except for the Ni(II) complex which shows a semiconducting character. Moessbauer data establish the 3+ oxidn. state for the Fe complex polymer.  
 ST transition metal phenylenedimethylenaminophenolato polymeric complex; aminophenolato phenylenedimethylene transition metal polymer; elec cond transition metal phenylenedimethylenaminophenolato polymer  
 IT Semiconductor materials  
     (nickel bis(hydroxyphenylazomethine)phenylene polymer complex)  
 IT Electric conductivity and conduction  
     Infrared spectra  
         (of transition metal bis(hydroxyphenylazomethine)phenylene polymer complexes)  
 IT Electric insulators and Dielectrics  
     (transition metal bis(hydroxyphenylazomethine)phenylene complexes)  
 IT Transition metals, compounds  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
     (complexes, with bis(hydroxyphenylazomethine)phenylene, prepn. and

elec. cond. and IR spectrum and thermal decompn. of polymeric)

IT Polymers, compounds  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (coordination, transition metal bis(hydroxyphenylazomethine)phenylene complexes, prepn. and elec. cond. and IR spectra and thermal decompn. of)

IT 623-27-8, 1,4-Benzenedialdehyde  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (condensation reaction of, with aminophenol)

IT 95-55-6, 2-Aminophenol  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (condensation reaction of, with benzenedialdehyde)

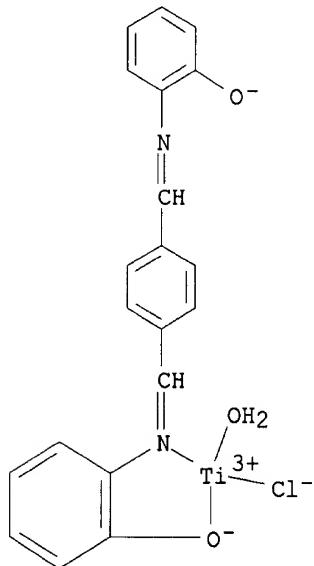
IT 13060-68-9P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and IR spectrum of)

IT 67290-47-5P 132322-53-3P **132355-75-0P** 132355-76-1P  
 132355-77-2P 132355-78-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and elec. cond. and IR spectrum and thermal decompn. of polymeric)

IT **132355-75-0P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and elec. cond. and IR spectrum and thermal decompn. of polymeric)

RN 132355-75-0 HCPLUS

CN Titanium, aquachloro[[2,2'-[1,4-phenylenebis(methylidynenitrilo)]bis[pheno lato]](2-)-N,O]-, (T-4)- (9CI) (CA INDEX NAME)



L12 ANSWER 10 OF 18 HCPLUS COPYRIGHT 2003 ACS  
 AN 1989:416663 HCPLUS  
 DN 111:16663  
 TI Complexes of titanium tetrachloride with silylated Schiff bases  
 AU De Blas, A.; Rodriguez, A.; Macias, A.; Bastida, R.; Sousa, A.; Ferro, O.; Diaz, A.

CS Dep. Quim. Inorg., Univ. Santiago de Compostela, Santiago de Compostela, Spain

SO Anales de Quimica, Serie B: Quimica Inorganica y Quimica Analitica (1988), 84(3), 287-92  
CODEN: AQSAD3; ISSN: 0211-1349

DT Journal

LA Spanish

CC 78-7 (Inorganic Chemicals and Reactions)

AB TiCl<sub>4</sub>.L [L = RC<sub>6</sub>H<sub>4</sub>CH:NC<sub>6</sub>H<sub>4</sub>(OSiMe<sub>2</sub>(Bu-tert)-o) (R = H, 2- and 4-MeO, 2- and 4-Cl)], TiCl<sub>2</sub>L<sub>12</sub> [HL<sub>1</sub> = R<sub>1</sub>C<sub>6</sub>H<sub>4</sub>CH:NC<sub>6</sub>H<sub>4</sub>OH-o (R = 2-MeO, 4-Me, 2- and 4-Cl), o-HOC<sub>6</sub>H<sub>4</sub>CH:NC<sub>6</sub>H<sub>4</sub>R<sub>2</sub> (R<sub>2</sub> = 2- and 4-MeO, 2- and 4-Me, 2- and 4-Cl, 4-NO<sub>2</sub>) and TiCl<sub>2</sub>L<sub>2</sub> {H<sub>2</sub>L<sub>2</sub> = [R<sub>3</sub>-2-HOC<sub>6</sub>H<sub>3</sub>CH:N]Z<sub>2</sub> (R<sub>3</sub> = H, 5-Br, 3-EtO, Z = (CH<sub>2</sub>)<sub>2</sub>, (CH<sub>2</sub>)<sub>3</sub>, o-C<sub>6</sub>H<sub>4</sub>) or [3,5-Br<sub>2</sub>C<sub>6</sub>H<sub>2</sub>CH:N]Z<sub>2</sub>} were prepd. and characterized by IR and NMR spectra. L are neutral bidentate ligands whereas L<sub>1</sub> are monobasic bidentate and L<sub>2</sub> are dibasic tetradeinate.

ST titanium Schiff base chloro complex; benzylideneaminophenol titanium complex; salicylideneaniline titanium complex; salicylidenediaminoalkane titanium complex; salicylidenediaminobenzene titanium complex

IT Nuclear magnetic resonance (of silylated benzylideneaminophenols and salicylideneaniline and disalicylidenediaminoalkanes and disalicylidenediaminobenzene and their titanium tetrachloride reaction products)

IT Infrared spectra (of titanium complexes with Schiff bases)

IT Schiff bases

RL: SPN (Synthetic preparation); PREP (Preparation) (titanium complexes)

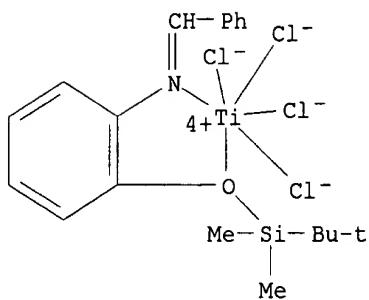
IT 35025-67-3P 35025-68-4P 55806-34-3P 55806-35-4P 86362-71-2P  
98220-11-2P 121116-90-3P 121116-91-4P 121116-92-5P 121116-93-6P  
121116-94-7P 121116-95-8P 121116-96-9P **121131-59-7P**  
**121131-60-0P 121131-61-1P 121131-62-2P**  
**121131-63-3P** 121131-64-4P 121131-65-5P 121131-66-6P  
121131-67-7P 121131-68-8P 121131-69-9P 121144-91-0P 121144-92-1P  
121156-86-3P 121156-87-4P  
RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. and IR spectrum and NMR of)

IT 68124-69-6P 82413-09-0P 121025-48-7P 121025-49-8P 121025-50-1P  
121025-51-2P 121025-52-3P 121025-53-4P 121025-54-5P 121025-55-6P  
121025-56-7P 121025-57-8P 121025-58-9P 121025-59-0P 121025-60-3P  
121025-61-4P 121025-62-5P 121025-63-6P 121025-64-7P 121025-65-8P  
121025-66-9P 121025-67-0P 121025-68-1P 121025-69-2P 121039-07-4P  
RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. and desilylation in reaction with titanium tetrachloride and NMR of)

IT **121131-59-7P 121131-60-0P 121131-61-1P**  
**121131-62-2P 121131-63-3P**  
RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. and IR spectrum and NMR of)

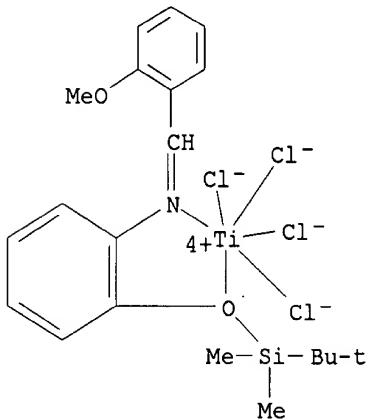
RN 121131-59-7 HCPLUS

CN Titanium, tetrachloro[2-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-N-(phenylmethylene)benzenamine-N,O]-, (OC-6-32)- (9CI) (CA INDEX NAME)



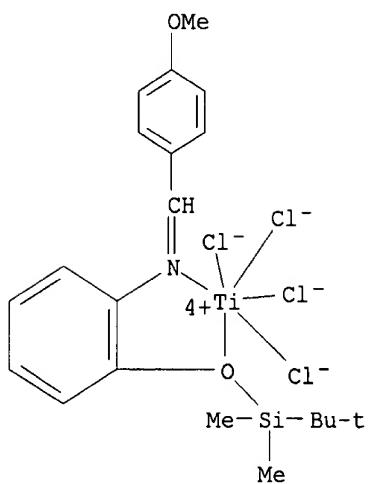
RN 121131-60-0 HCAPLUS

CN Titanium, tetrachloro[2-[(1,1-dimethylethyl)dimethylsilyl]oxy]-N-[(2-methoxyphenyl)methylene]benzenamine-N1,O2]-, (OC-6-32)- (9CI) (CA INDEX NAME)



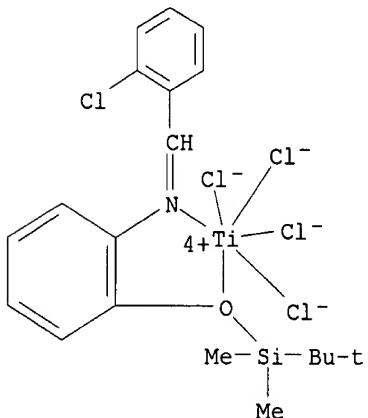
RN 121131-61-1 HCAPLUS

CN Titanium, tetrachloro[2-[(1,1-dimethylethyl)dimethylsilyl]oxy]-N-[(4-methoxyphenyl)methylene]benzenamine-N1,O2]-, (OC-6-32)- (9CI) (CA INDEX NAME)



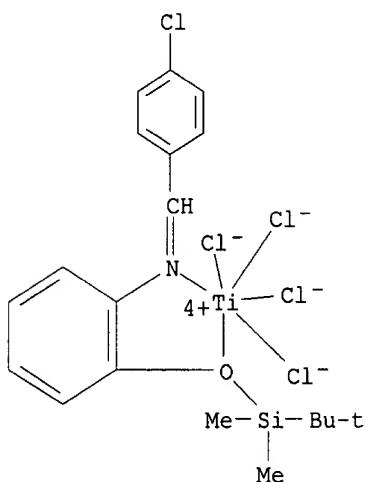
RN 121131-62-2 HCAPLUS

CN Titanium, tetrachloro[N-[(2-chlorophenyl)methylene]-2-[(1,1-dimethylethyl)dimethylsilyl]oxy]benzenamine-N,O-, (OC-6-32)- (9CI) (CA INDEX NAME)



RN 121131-63-3 HCAPLUS

CN Titanium, tetrachloro[N-[(4-chlorophenyl)methylene]-2-[(1,1-dimethylethyl)dimethylsilyl]oxy]benzenamine-N,O-, (OC-6-32)- (9CI) (CA INDEX NAME)



L12 ANSWER 11 OF 18 HCPLUS COPYRIGHT 2003 ACS  
 AN 1977:114601 HCPLUS  
 DN 86:114601  
 TI Magnetic studies on the Schiff base complexes of lanthanum(III), praseodymium(III), and neodymium(III)  
 AU Agarwal, Shiv K.; Tandon, Jagdish P.  
 CS Dep. Chem., Univ. Rajasthan, Jaipur, India  
 SO Monatshefte fuer Chemie (1977), 108(1), 175-9  
 CODEN: MOCMB7; ISSN: 0026-9247  
 DT Journal  
 LA German  
 CC 77-1 (Magnetic Phenomena)  
 AB Specific magnetic susceptibilities (.chi.s) of several newly synthesized chelates of some of the lanthanons [La(III), Pr(III) and Nd(III)] are reported. These derivs. are of the general type,  $\text{Ln}(\text{O-i-C}_3\text{H}_7)_3\text{n}(\text{C}_6\text{H}_5\text{CH:NRO})_n$  [where, Ln = La(III), Pr(III) or Nd(III); n = 1 or 2 and R =  $\text{CH}_2\text{CH}_2$ ,  $\text{CH}_2\text{CHCH}_3$  or  $\text{C}_6\text{H}_4$ ] and were prepd. by the reaction of the alkoxides of the lanthanons with Schiff bases such as benzylidene-2-hydroxyethylamine ( $\text{C}_6\text{H}_5\text{CH:NCH}_2\text{CH}_2\text{OH}$ ), benzylidene-2-hydroxy-n-propylamine ( $\text{C}_6\text{H}_5\text{CH:NCH}_2\text{CH}_2\text{CH}_3$ ) and benzylidene-o-aminophenol ( $\text{C}_6\text{H}_5\text{CH:NC}_6\text{H}_4\text{OH}$ ) in different molar relations in dry benzene. The resulting cryst. derivs. are nonvolatile, light to deep yellow or blackish in color. These tend to polymerize on keeping as shown by their insol. nature and higher m.ps., the polymn. possibly occurring by the intermol. coordination through O atoms as reported earlier. With the Gouy method, the bis-isopropoxy mono-Schiff base and mono-isopropoxy bis-Schiff base complexes of La(III) were shown to be diamagnetic, with .chi.s values being in the range of -0.32 to -0.45 .times.  $10^{-6}$  and -0.39 to -0.55 .times.  $10^{-6}$  c.g.s. units at 305 K, resp. In the remaining derivs.,  $\text{Pr}(\text{O-i-C}_3\text{H}_7)_3\text{n}(\text{C}_6\text{H}_5\text{CH:NRO})_n$  and  $\text{Nd}(\text{O-i-C}_3\text{H}_7)_3\text{n}(\text{C}_6\text{H}_5\text{CH:NRO})_n$  (where, n = 1 or 2 and R =  $\text{CH}_2\text{CH}_2$ ,  $\text{CH}_2\text{CHCH}_3$  or  $\text{C}_6\text{H}_4$ ) the magnetic moment values range between 3.25 to 3.32 and 3.30 to 3.33 .mu.B resp., indicating their paramagnetic nature.  
 ST susceptibility magnetic rare earth chelate; lanthanum Schiff base magnetic susceptibility; neodymium Schiff base magnetic susceptibility; praseodymium Schiff base magnetic susceptibility  
 IT Magnetic moment  
 Magnetic susceptibility

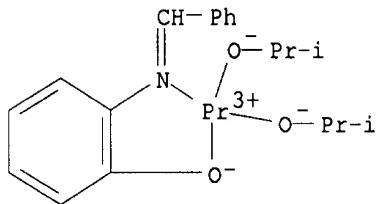
(of rare earth Schiff base complexes)

IT 56147-67-2 **56147-69-4** 56147-83-2 56147-85-4 56147-87-6  
 56147-89-8 56147-91-2 56147-93-4 **56147-95-6** 56147-97-8  
 56226-36-9 62288-33-9  
 RL: PRP (Properties)  
 (magnetic susceptibility and moment of)

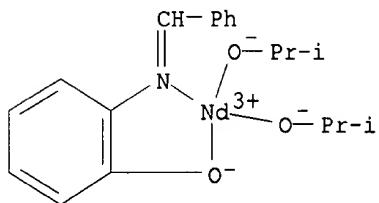
IT 56147-65-0 **56147-73-0** 56147-75-2 56147-77-4 56147-79-6  
 56147-81-0  
 RL: PRP (Properties)  
 (magnetic susceptibility of)

IT **56147-69-4 56147-95-6**  
 RL: PRP (Properties)  
 (magnetic susceptibility and moment of)

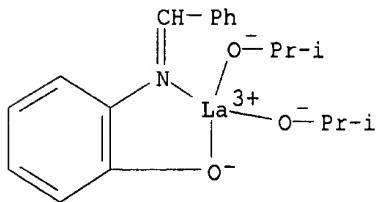
RN 56147-69-4 HCPLUS  
 CN Praseodymium, [2-[(phenylmethylene)amino]phenolato-N,O]bis(2-propanolato)-(9CI) (CA INDEX NAME)



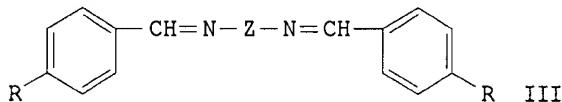
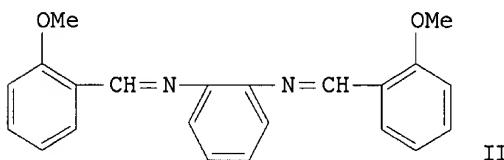
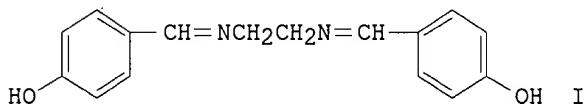
RN 56147-95-6 HCPLUS  
 CN Neodymium, [2-[(phenylmethylene)amino]phenolato-N,O]bis(2-propanolato)-(9CI) (CA INDEX NAME)



IT **56147-73-0**  
 RL: PRP (Properties)  
 (magnetic susceptibility of)  
 RN 56147-73-0 HCPLUS  
 CN Lanthanum, [2-[(phenylmethylene)amino]phenolato-N,O]bis(2-propanolato)-(9CI) (CA INDEX NAME)

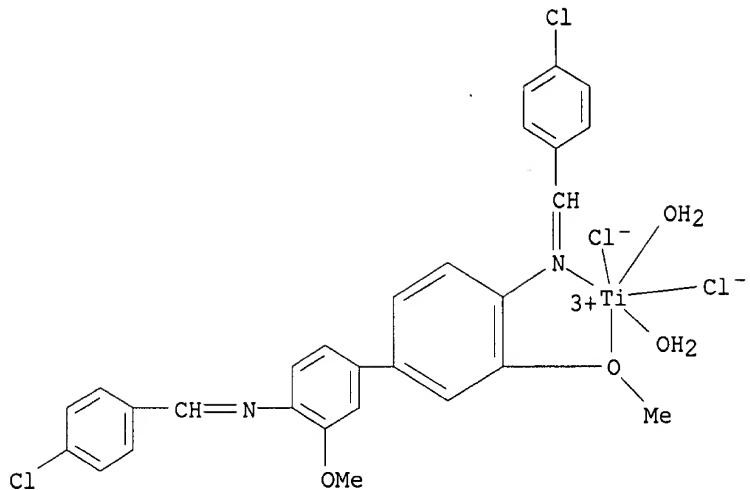


L12 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1977:82992 HCAPLUS  
 DN 86:82992  
 TI Schiff base complexes of titanium(III)  
 AU Rizvi, S. F. H.; Ahmad, Naseer  
 CS Dep. Chem., Aligarh Muslim Univ., Aligarh, India  
 SO Journal of the Indian Chemical Society (1976), 53(8), 854-5  
 CODEN: JICSAH; ISSN: 0019-4522  
 DT Journal  
 LA English  
 CC 78-7 (Inorganic Chemicals and Reactions)  
 GI



AB Ti(III) complexes with the Schiff bases I, II, and III (R = OH, Cl; Z = o-phenylene, 4,4'-biphenylene, 3,3'-dimethoxy-4,4'-biphenylene) of the types  $[\text{TiCl}_2\text{L}]\text{Cl}$ ,  $[\text{TiCl}_2(\text{H}_2\text{O})_2\text{L}]\text{Cl}$ , and  $[\text{TiCl}_2\text{L}(\text{THF})]\text{Cl}$  (L = the neutral bidentate Schiff base which coordinates only via the N atoms) were prep'd. and characterized by chem. anal., magnetic moments, elec. cond., IR spectra, and thermogravimetry.  
 ST titanium 3 Schiff base complex  
 IT Schiff bases  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (titanium(3+) complexes)  
 IT 61917-21-3P 61917-22-4P 61917-23-5P 61917-24-6P **61917-25-7P**  
 61917-26-8P 61970-80-7P **61993-35-9P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)  
 IT **61917-25-7P 61993-35-9P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)  
 RN 61917-25-7 HCAPLUS  
 CN Titanium(1+), diaqua[N,N'-bis[(4-chlorophenyl)methylene]-3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diamine-N4,O3]dichloro-, chloride (9CI) (CA INDEX NAME)

PAGE 1-A



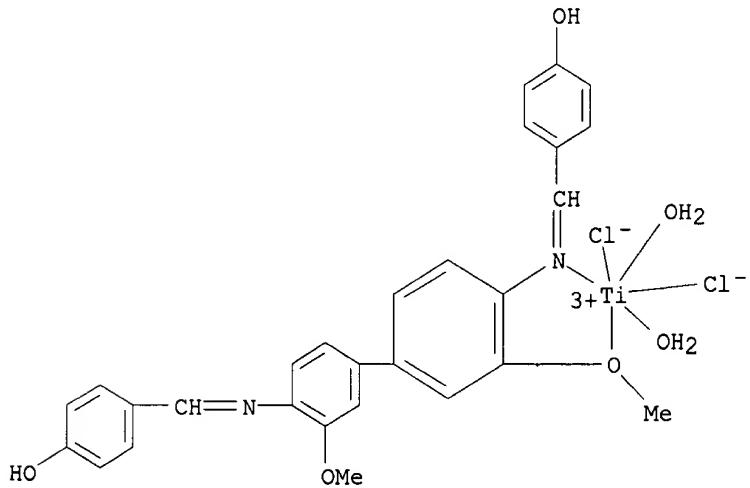
PAGE 2-A

● Cl<sup>-</sup>

RN 61993-35-9 HCPLUS

CN Titanium(1+), diaquadichloro[4,4'-(3,3'-dimethoxy[1,1'-biphenyl]-4,4'-diyl)bis(nitrilomethylidyne)]bis[phenol]-N4,O4]-, chloride (9CI) (CA INDEX NAME)

PAGE 1-A



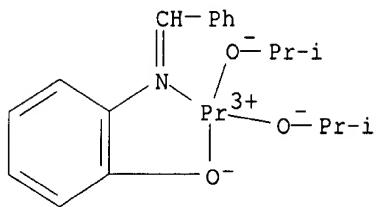
PAGE 2-A

Cl<sup>-</sup>

L12 ANSWER 13 OF 18 HCPLUS COPYRIGHT 2003 ACS  
AN 1975:470754 HCPLUS  
DN 83:70754  
TI Schiff base derivatives of lanthanons. Synthesis of polymeric derivatives of lanthanum(III), praseodymium(III), and neodymium(III) from the Schiff bases derived from the condensation of benzaldehyde with hydroxyalkylamines or hydroxyarylamines  
AU Agarwal, S. K.; Tandon, J. P.  
CS Dep. Chem., Univ. Rajasthan, Jaipur, India  
SO Acta Chimica Academiae Scientiarum Hungaricae (1975), 85(1), 71-8  
CODEN: ACASA2; ISSN: 0001-5407  
DT Journal  
LA English  
CC 78-7 (Inorganic Chemicals and Reactions)  
AB Ln(OPr-iso)3-n(PhCH:NR)n, where Ln = La, Pr, Nd; n = 1 or 2; R = -CH<sub>2</sub>CH<sub>2</sub>O, -CH<sub>2</sub>CH(Me)O, and C<sub>6</sub>H<sub>4</sub>O, were prepd. by the reaction of Ln(OPr-iso)3 with PhCH:NCH<sub>2</sub>CH<sub>2</sub>OH, PhCH:NCH<sub>2</sub>CH(OH)Me, and PhCH:NC<sub>6</sub>H<sub>4</sub>OH in different stoichiometric ratios in anhyd. C<sub>6</sub>H<sub>6</sub>. The resulting derivs. polymerized on standing as indicated by their conversion to insol. and higher-melting materials. Plausible structures for the complexes are discussed.  
ST lanthanide isopropoxy Schiff base; lanthanum isopropoxy Schiff base; praseodymium isopropoxy Schiff base; neodymium isopropoxy Schiff base  
IT 770-37-6P 3230-45-3P 5456-01-9P 56147-66-1P 56147-68-3P  
**56147-70-7P** 56147-72-9P **56147-74-1P** 56147-76-3P  
56147-78-5P 56147-80-9P 56147-82-1P 56147-84-3P 56147-86-5P  
56147-88-7P 56147-90-1P 56147-92-3P 56147-94-5P **56147-96-7P**  
56147-98-9P 56148-00-6P 56148-02-8P 56148-04-0P 56148-06-2P  
56148-08-4P 56148-10-8P 56226-37-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)  
IT **56147-70-7P** **56147-74-1P** **56147-96-7P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)  
RN 56147-70-7 HCPLUS  
CN Praseodymium, [2-[(phenylmethylene)amino]phenolato-N,O]bis(2-propanolato)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 56147-69-4  
CMF C19 H24 N O3 Pr  
CCI CCS



RN 56147-74-1 HCPLUS

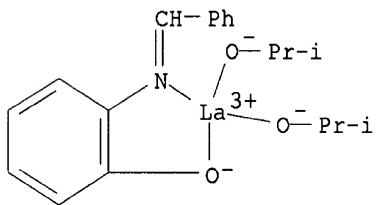
CN Lanthanum, [2-[(phenylmethylene)amino]phenolato-N,O]bis(2-propanolato)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 56147-73-0

CMF C19 H24 La N O3

CCI CCS



RN 56147-96-7 HCPLUS

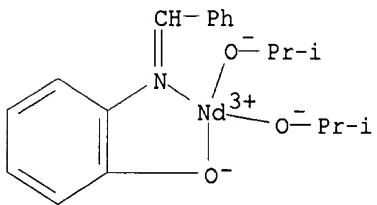
CN Neodymium, [2-[(phenylmethylene)amino]phenolato-N,O]bis(2-propanolato)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 56147-95-6

CMF C19 H24 N Nd O3

CCI CCS



L12 ANSWER 14 OF 18 HCPLUS COPYRIGHT 2003 ACS

AN 1974:55432 HCPLUS

DN 80:55432

TI Zirconium(IV) derivatives of monofunctional bidentate Schiff bases

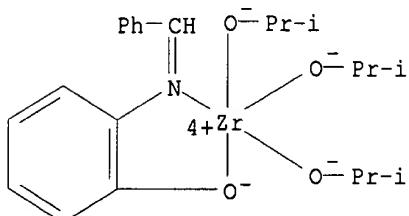
AU Gupta, S. R.; Tandon, J. P.

CS Chem. Dep., Univ. Rajasthan, Jaipur, India

SO Bulletin de l'Academie Polonaise des Sciences, Serie des Sciences

Chimiques (1973), 21(12), 911-16  
 CODEN: BAPCAQ; ISSN: 0001-4095

DT Journal  
 LA English  
 CC 78-7 (Inorganic Chemicals and Reactions)  
 AB  $Zr(OR-iso)^4-xLx$  ( $LH$  = benzylidene-2-hydroxyethylamine, benzylidene-2-hydroxypropylamine, salicylideneaniline,  $\beta$ -hydroxynaphthylideneaniline, and benzylidene-*o*-aminophenol;  $x = 1-4$ ) were prepd. by allowing  $Zr(OR-iso)^4$ -*PrOH* to react with the appropriate Schiff bases in 1:1, 1:2, 1:3, or 1:4 molar ratios. Some tentative structures are proposed based on mol. assocn. and ir spectral studies.  
 ST zirconium isopropoxide Schiff base  
 IT Schiff bases  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (zirconium complexes)  
 IT 51133-57-4P 51133-58-5P  
 RL: FORM (Formation, nonpreparative); PREP (Preparation)  
 (formation of, in equil. with trimer)  
 IT 51120-99-1P 51133-59-6P 51133-60-9P 51133-61-0P  
 51133-62-1P 51133-63-2P 51133-64-3P 51133-65-4P 51133-66-5P  
 51133-67-6P 51133-68-7P 51717-14-7P 51717-15-8P 51717-16-9P  
 51717-17-0P 51717-18-1P 51764-50-2P 51764-51-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)  
 IT 51133-61-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)  
 RN 51133-61-0 HCAPLUS  
 CN Zirconium, [2-[(phenylmethylene)amino]phenolato-*N,O*]tris(2-propanolato)-  
 (9CI) (CA INDEX NAME)



L12 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1971:3374 HCAPLUS  
 DN 74:3374  
 TI Titanium(IV) complexes of monofunctional bidentate Schiff bases  
 AU Gupta, S. R.; Tandon, J. P.  
 CS Chem. Lab., Univ. Rajasthan, Jaipur, India  
 SO Zeitschrift fuer Naturforschung, Teil B: Anorganische Chemie, Organische Chemie, Biochemie, Biophysik, Biologie (1970), 25(10), 1090-4  
 CODEN: ZENBAX; ISSN: 0044-3174  
 DT Journal  
 LA English  
 CC 25 (Noncondensed Aromatic Compounds)  
 AB Title complexes, e.g.  $L_xTi(OR-iso)^4-x$  [I, where  $L = PhCH:NC_6H_4O-*o*,$   $PhN:CHC_6H_4O-*o*$ ,  $PhCH:N-(CH_2)_2O-$ ,  $PhCH:NCH_2CHMeO-$ , or  $\beta$ -hydroxynaphthyl-

methylideneaniline anion; and x = 1-4] were prep'd. by refluxing Ti(OPr-iso)4 and LH in 1:1-4 molar ratios in anhyd. C6H6. Detns. of ir spectra (400-3400 cm-1) and mol. wts. of I indicated the formation of chelates with coordination no. 5 or 7 for the central Ti atom.

ST titanium Schiff bases complexes; Schiff bases titanium complexes; complexes titanium Schiff bases; chelates titanium Schiff bases; isopropoxy titanium Schiff bases chelates; IR titanium Schiff bases chelates; coordination titanium anils complexes; anils titanium chelates

IT Spectra, infrared  
(of Schiff bases and titanium Schiff base complexes)

IT Schiff bases  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(titanium complexes, ir spectrum of)

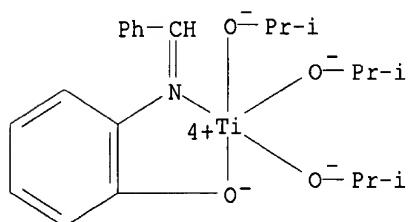
IT 2-Naphthol, 1-(N-phenylformimidoyl)-, titanium complexes  
2-Propanol, 1-(benzylideneamino)-, titanium complexes  
Ethanol, 2-(benzylideneamino)-, titanium complexes  
Phenol, o-(N-phenylformimidoyl)-, titanium complexes  
Phenol, o-(benzylideneamino)-, titanium complexes  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

IT 731-90-8P 770-37-6P 779-84-0P 3230-45-3P 5456-01-9P 30178-12-2P  
30178-13-3P 30178-14-4P 30178-15-5P 30305-37-4P 30305-38-5P  
30305-39-6P 30305-40-9P 30632-88-3P 30632-89-4P 30632-90-7P  
**30632-91-8P** 30632-92-9P 30632-93-0P 30632-94-1P  
30632-95-2P 30636-35-2P 30754-00-8P 30771-99-4P 31871-56-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

IT **30632-91-8P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

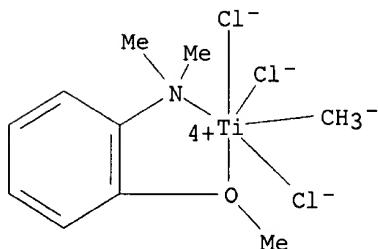
RN 30632-91-8 HCAPLUS

CN Titanium, [o-(benzylideneamino)phenolato]triisopropoxy- (8CI) (CA INDEX NAME)



L12 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2003 ACS  
AN 1970:466703 HCAPLUS  
DN 73:66703  
TI Chemistry of methyltitanium trichloride. Synthesis, properties, infrared spectra, and variable temperature nuclear magnetic resonance spectra of adducts of methyltitanium trichloride with symmetrical bidentate ligands  
AU Clark, Robin J. H.; McAlees, A. J.  
CS William Ramsay Lab., Univ. Coll., London, UK  
SO Journal of the Chemical Society [Section] A: Inorganic, Physical, Theoretical (1970), (12), 2026-33  
CODEN: JCSIAP; ISSN: 0022-4944  
DT Journal

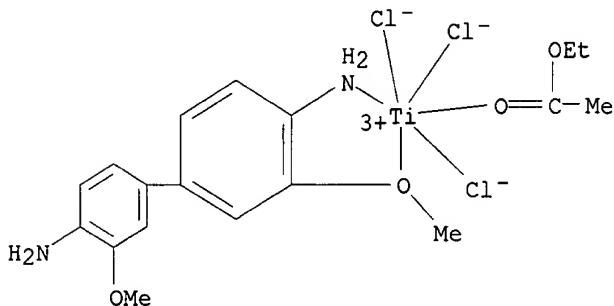
LA English  
CC 29 (Organometallic and Organometalloidal Compounds)  
AB A series of complexes of  $\text{MeTiCl}_3$  with the general formula  $\text{MeTiCl}_3$ . B was prep'd. with the bidentate ligands (B). 1,2-dimethoxyethane,  $\text{N,N,N',N'-tetramethylethylenediamine}$ , 2,5-dithiahexane, 1,2-bis(diphenylphosphino)ethane,  $\text{N,N,N',N'-tetramethyl-o-phenylenediamine}$  and  $\text{N,N'-dimethyl-o-anisidine}$ . The adducts are air- and moisture-sensitive solids, which decomp. on storage in vacuo at ambient temp. The thermal decompn. and oxidn. of these complexes were investigated in an attempt to elucidate the factors affecting the reactivity of the Ti-C bond. The latter reaction gave the corresponding adducts of  $\text{MeOTiCl}_3$ ,  $\text{TiCl}_3\text{MeO.B}$ . Variable temp. N.M.R. studies of the  $\text{MeTiCl}_3$  complexes suggest that these prefer to adopt the meridional configuration.  
ST methyltitanium trichloride complexes; titanium methyl trichloride complexes  
IT Nuclear magnetic resonance Spectra, infrared  
(of methyltitanium trichloride bidentate complexes)  
IT Ethane, 1,2-bis(methylthio)-, titanium complexes  
Ethane, 1,2-dimethoxy-, titanium complexes  
Ethylenediamine,  $\text{N,N,N',N'-tetramethyl-}$ , titanium complexes  
Phosphine, ethylenebis[diphenyl-, titanium complexes  
 $\text{o-Anisidine}$ ,  $\text{N,N-dimethyl-}$ , titanium complexes  
 $\text{o-Phenylenediamine}$ ,  $\text{N,N,N',N'-tetramethyl-}$ , titanium complexes  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)  
IT 27679-40-9P 27679-41-0P 27679-42-1P **27679-43-2P**  
27964-25-6P 29421-11-2P 29421-12-3P 29421-13-4P 29421-14-5P  
32237-69-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)  
IT 2747-38-8  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with bidentate ligands)  
IT **27679-43-2P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)  
RN 27679-43-2 HCPLUS  
CN Titanium, trichloro( $\text{N,N-dimethyl-o-anisidine}$ )methyl-, stereoisomer (8CI)  
(CA INDEX NAME)



L12 ANSWER 17 OF 18 HCPLUS COPYRIGHT 2003 ACS  
AN 1966:488111 HCPLUS  
DN 65:88111

OREF 65:16479g-h  
TI The complex formation of anhydrous titanium(III) chloride with primary mono- and diamines  
AU Prasad, Sarju; Devi, Shyamala  
CS Banaras Hindu Univ., Varanasi  
SO J. Indian Chem. Soc. (1966), 43(7), 495-8  
DT Journal  
LA English  
CC 14 (Inorganic Chemicals and Reactions)  
AB Complexes of formula  $TiCl_3 \cdot 2L_1 \cdot X$  and  $TiCl_3 \cdot L_2 \cdot X$ , where  $L_1$  is a primary monoamine,  $L_2$  is a primary diamine, and  $X$  is EtOAc, were prepd. by the addn. of a  $TiCl_3$  soln. to a slight excess of an amine soln., filtration, and drying under vacuum. The monoamines used were  $\alpha$ - and  $\beta$ -naphthylamine,  $\alpha$ -,  $p$ -, and  $m$ -anisidine,  $\alpha$ -,  $p$ -, and  $m$ -toluidine,  $\alpha$ - and  $p$ -phenetidine,  $PhNH_2$ , benzylamine, and  $p$ -xylidine. The diamines used were  $\alpha$ -,  $p$ -, and  $m$ -phenylenediamine, benzidine,  $\alpha$ -toluidine, and  $\alpha$ -dianisidine. The complexes were generally insol. in org. solvents and decompd. readily in  $H_2O$ .  
IT 1-Naphthylamine, titanium complex with Et acetate  
2-Naphthylamine, titanium complex with Et acetate  
Aniline, reaction products with  $HCHO$ , titanium complex with Et acetate  
Benzidine, titanium complex with Et acetate  
Benzidine, 3,3'-dimethoxy-, titanium complex with Et acetate  
Benzidine, 3,3'-dimethyl-, titanium complex with Et acetate  
Benzylamine, titanium complex with Et acetate  
Xylidine, titanium complex with Et acetate  
 $m$ -Anisidine, titanium complex with Et acetate  
 $m$ -Phenylenediamine, titanium complex with Et acetate  
 $m$ -Toluidine, titanium complex with Et acetate  
 $\alpha$ -Anisidine, titanium complex with Et acetate  
 $\alpha$ -Phenetidine, titanium complex with Et acetate  
 $\alpha$ -Phenylenediamine, titanium complex with Et acetate  
 $\alpha$ -Toluidine, titanium complex with Et acetate  
 $p$ -Anisidine, titanium complex with Et acetate  
 $p$ -Phenetidine, titanium complex with Et acetate  
 $p$ -Phenylenediamine, titanium complex with Et acetate  
 $p$ -Toluidine, titanium complex with Et acetate  
IT 15642-28-1, Titanium, trichloro(ethyl acetate)bis(1-naphthylamine)-  
15642-29-2, Titanium, trichloro(ethyl acetate)bis(2-naphthylamine)-  
15642-30-5, Titanium, trichloro(ethyl acetate)bis( $\alpha$ -toluidine)-  
15642-31-6, Titanium, trichlorobis( $\alpha$ -anisidine) (ethyl acetate)-  
15642-32-7, Titanium, trichlorobis( $p$ -anisidine) (ethyl acetate)-  
15642-33-8, Titanium, trichlorobis( $m$ -anisidine) (ethyl acetate)-  
15642-34-9, Titanium, trichloro(ethyl acetate)bis( $p$ -toluidine)-  
15664-96-7, Titanium, trichloro(ethyl acetate)bis( $m$ -toluidine)-  
15664-97-8, Titanium, trichloro(ethyl acetate)bis( $\alpha$ -phenetidine)-  
15740-46-2, Titanium, trichloro(ethyl acetate)bis( $p$ -phenetidine)-  
15740-47-3, Titanium, trichlorobis(aniline) (ethyl acetate)- 15740-48-4,  
Titanium, trichlorobis(benzylamine) (ethyl acetate)- 15803-76-6,  
Titanium, trichloro(ethyl acetate) ( $m$ -phenylenediamine)- 15820-74-3,  
Titanium, trichloro(3,3'-dimethylbenzidine) (ethyl acetate)- 16050-47-8,  
Titanium, trichloro(ethyl acetate) ( $p$ -phenylenediamine)- 16050-48-9,  
Titanium, trichloro(benzidine) (ethyl acetate)- 30141-53-8, Titanium,  
trichloro(ethyl acetate)bis(xylidine)- 94648-99-4, Titanium,  
trichloro(ethyl acetate) ( $\alpha$ -phenylenediamine)- 98397-55-8,  
Titanium, trichloro(3,3'-dimethoxybenzidine) (ethyl acetate)-  
(prepn. of)  
IT 98397-55-8, Titanium, trichloro(3,3'-dimethoxybenzidine) (ethyl

acetate)-  
(prepn. of)  
RN 98397-55-8 HCAPLUS  
CN Titanium, trichloro(3,3'-dimethoxybenzidine)(ethyl acetate)- (7CI) (CA  
INDEX NAME)



L12 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1965:401502 HCAPLUS  
 DN 63:1502  
 OREF 63:235e-g  
 TI Complexes with diaminobiphenyl derivatives. XII. Combinations of zirconyl chloride with tolidine and dianisidine  
 SO Acad. Rep. Populare Romine Filiala Cluj, Studii Cercetari Chim. (1963) 251-63  
 DT Journal  
 LA Unavailable  
 CC 14 (Inorganic Chemicals and Reactions)  
 AB cf. CA 61, 14162h. Complex combinations between quadrivalent elements and diaminobiphenyl derivs. were obtained by the addn. of a concd. soln. of the salt of the quadrivalent element in MeOH to an Et<sub>2</sub>O soln. of the diaminobiphenyl deriv. By changing the concns. and the molar ratios between the components, different complexes were obtained. The tolidine complexes have a weak beige color, while those of the dianisidine are gray-blue-violet. They are generally microcryst. powders, little sol. in the usual org. solvents and hydrolyze in water. The thermogravimetric and thermodifferential curves resemble each other, but are not identical. A spectroscopic study in the uv has been done, but the results are not conclusive. A qual. comparison of x-ray measurements shows that the spectra of the synthesized substances are different from each other as well as when compared to the spectra of the components. Also their chem. analyses vary from one substance to another and their compn. might be formulated by: x(ZrOCl<sub>2</sub>).y base. z H<sub>2</sub>O, when x and y vary from 1 to 5, and z from 0 to 16. The structure is a linear polymeric one, alternating a metal unit and a basic unit.  
 IT Spectra, visible and ultraviolet  
 (of benzidine complexes with zirconyl chloride)  
 IT Molecular structure  
 Spectra, visible and ultraviolet  
 (of zirconyl chloride complexes with 3,3'-dimethoxybenzidine or 3,3'-dimethylbenzidine)  
 IT Benzidine, zirconium complex  
 Benzidine, 3,3'-dimethoxy-, zirconium complex  
 Benzidine, 3,3'-dimethyl-, zirconium complex

IT Zirconium, dioxotetrachlorobis(3,3'-dimethylbenzidine)di-  
12150-04-8, Zirconium, trioxohexachlorobis(3,3'-dimethoxybenzidine)tri-  
12151-08-5, Zirconium, dioxotetrachlorotris(3,3'-dimethylbenzidine)di-  
12151-09-6, Zirconium, tetraoxooctachlorotris(3,3'-  
dimethoxybenzidine)tetra- 12151-35-8, Zirconium,  
pentaoxodecachlorotetrakis(3,3'-dimethoxybenzidine)penta- 14837-45-7,  
Zirconium, tetraoxooctachloropentakis(3,3'-dimethylbenzidine)tetra-  
15002-42-3, Zirconium, dioxotetrachloro(3,3'-dimethylbenzidine)di-  
**97087-04-2**, Zirconium, oxodichloro(3,3'-dimethoxybenzidine)-  
97087-05-3, Zirconium, oxodichloro(3,3'-dimethylbenzidine)-  
(prep. of)  
IT **97087-04-2**, Zirconium, oxodichloro(3,3'-dimethoxybenzidine)-  
(prep. of)  
RN 97087-04-2 HCPLUS  
CN Zirconium, oxodichloro(3,3'-dimethoxybenzidine)- (7CI) (CA INDEX NAME)

